

AMERICAN BEE JOURNAL

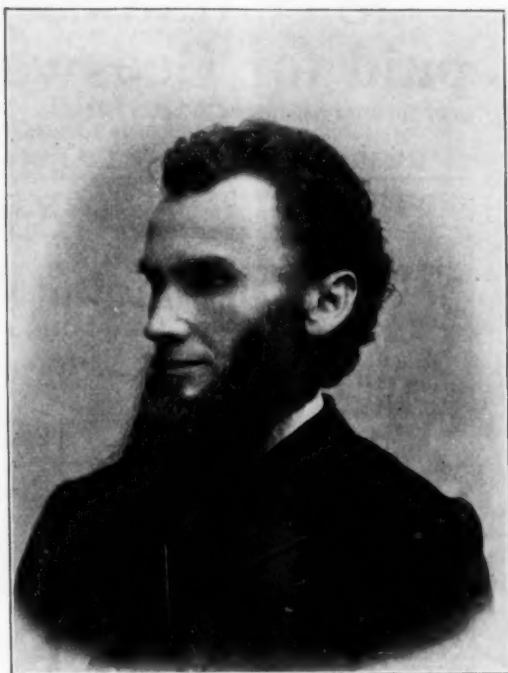


GEORGE W. YORK,
Editor.

CHICAGO, ILL., MARCH 28, 1901

FORTY-FIRST YEAR
No. 13.

WEEKLY



REV. J. D. GEHRING.
(See page 199.)

THE AMERICAN BEE JOURNAL

PUBLISHED WEEKLY BY

GEORGE W. YORK & CO.

144 & 146 Erie St., Chicago, Ill.

Entered at the Post-Office at Chicago as Second-Class Mail-Matter.

IMPORTANT NOTICES:

The Subscription Price of this journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50c a year extra for postage. Sample copy free.

The Wrapper-Label Date of this paper indicates the end of the month to which your subscription is paid. For instance, "Dec 01" on your label shows that it is paid to the end of December, 1901.

Subscription Receipts—We do not send a receipt for money sent us to pay subscription, but change the date on your wrapper-label, which shows you that the money has been received and duly credited.

Advertising Rates will be given upon application.

Reformed Spelling—The American Bee Journal adopts the Orthography of the following Rule, recommended by the joint action of the American Philological Association and the Philological Society of England:—Change "d" or "ed" final to "t" when so pronounced, except when the "e" affects a preceding sound. Also some other changes are used.

National Bee-Keepers' Association**OBJECTS:**

To promote and protect the interests of its members.

To prevent the adulteration of honey.

To prosecute dishonest honey commission-men.

EXECUTIVE COMMITTEE.

ERNEST R. ROOT, President.

R. C. AIKIN, Vice-President.

DR. A. B. MASON, Secretary, Toledo, Ohio.

EUGENE SECOR, General Manager and Treasurer, Forest City, Iowa.

MEMBERSHIP DUES, \$1.00 a year.

The Bee-Keeper's Guide;

Or, Manual of the Apiary,

—BY—

PROF. A. J. COOK

460 Pages—16th (1899) Edition—18th Thousand—\$1.25 postpaid.

A description of the book here is quite unnecessary—it is simply the most complete scientific and practical bee-book published to-day. Fully illustrated, and all written in the most fascinating style. The author is also too well-known to the whole bee-world to require any introduction. No bee-keeper is fully equipped, or his library complete, without THE BEE-KEEPERS' GUIDE.

This 16th and latest edition of Prof. Cook's magnificent book of 460 pages, in neat and substantial cloth binding, we propose to GIVE AWAY to our present subscribers, for the work of getting NEW subscribers for the American Bee Journal.

Given for TWO New Subscribers.

The following offer is made to PRESENT subscribers only, and no premium is also given to the two NEW subscribers—simply the Bee Journal for one year:

Send us TWO NEW SUBSCRIBERS to the Bee Journal (with \$2.00), and we will mail you a copy of Prof. Cook's book FREE as a premium. Prof. Cook's book alone sent for \$1.25, or we club it with the Bee Journal for a year—both for only \$1.75. But surely anybody can get only TWO NEW SUBSCRIBERS to the Bee Journal for a year, and thus get the book as a premium. Let every body try for it. Will YOU have one?

GEORGE W. YORK & CO.,

144 & 146 Erie Street,

CHICAGO, ILL.

Long-Tongued Bees

ARE DEMANDED NOW.



ONE Untested Italian Queen FREE as a Premium for sending us TWO new subscribers to the American Bee Journal for one year (with \$2); or, one Tested Queen free as a premium for sending us FOUR new subscribers (with \$4.00.)

We have arranged with one of the oldest and best queen-breeders (having many years' experience) to rear queens for us the coming season. His bees average quite a good deal the longest tongues of any yet measured. The Breeder he will use is direct from Italy, having imported her himself. Her worker-bees are large, somewhat leather-colored, very gentle, and scarcely requiring veil or smoke. They stored red clover honey last season.

Orders for these fine, "long-reach" queens will be filled in rotation—"first come, first served"—beginning about June 10th. It is expected that orders can be filled quite promptly, as a large number of nuclei will be run. All queens will be guaranteed to arrive in good condition, and all will be clipped, unless otherwise ordered.

CASH PRICES of these fine queens will be as follows: Untested, \$1.00 each; Tested, \$2.00 each. Send all orders to

GEORGE W. YORK & CO.

144 & 146 Erie St., CHICAGO, ILL.

28 cents Cash paid for Beeswax.



This is a good time to send in your Beeswax. We are paying 28 cents a pound—CASH—for best yellow, upon its receipt, or 30 cents in trade. Impure wax not taken at any price.

Address as follows, very plainly,

GEORGE W. YORK & CO., 144 & 146 Erie St., CHICAGO.

Best White Alfalfa or Basswood Extracted Honey

ALL IN 60-POUND TIN CANS.

ALFALFA HONEY*****

This is the famous White Extracted Honey gathered in the great Alfalfa regions of the Central West. It is a splendid honey, and nearly everybody who cares to eat honey at all can't get enough of the Alfalfa extracted.



BASSWOOD HONEY*****

This is the well-known light-colored honey gathered from the rich, nectar-laden basswood blossoms in Wisconsin. It has a stronger flavor than Alfalfa, and is preferred by those who like a distinct flavor in their honey.

A sample of either, by mail, 8 cents; samples of both, 15 cents—to pay for package and postage. By freight—one 60-pound can, 9½ cents per pound; two cans, 9 cents per pound; four or more cans, 8½ cents per pound. Cash must accompany each order. If ordering two or more cans you can have half of each kind of honey, if you so desire. The cans are boxt.

Order the Above Honey and then Sell It.

We would suggest that those bee-keepers who did not produce enough honey for their home demand this year, just order some of the above, and sell it. And others, who want to earn some money, can get this honey and work up a demand for it almost anywhere.

Address,

GEORGE W. YORK & CO., 144 & 146 Erie St., Chicago, Ill.

AMERICAN BEE JOURNAL

ESTABLISHED IN 1861

THE OLDEST BEE-PAPER IN AMERICA

41st YEAR.

CHICAGO, ILL., MARCH 28, 1901.

No. 13.

* Editorial Comments. *

Prof. Cook's Review of the "A B C."—When publishing Prof. Cook's first article of the review of the "A B C of Bee-Culture," we should have stated that his criticisms referred to the edition of 1899-1900, and not to the latest, or 1901 edition. As the criticisms read, one would naturally infer that they relate to the new edition, and not to the previous one. With perhaps two exceptions, all the matter which Prof. Cook criticised in his first article has either been stricken out or materially modified in statement. Only about half of the edition of 1899 could be revised, owing to the limited time at the disposal of the revisers, but when the latest edition (the one for 1901) was under consideration, that matter which had not been changed was either rewritten or revised. So, as it happened, Prof. Cook is calling attention to certain errors and other points that needed modification, but which are not in the book now offered for sale. This is well, as only a very few, comparatively, have a copy of the 1901 edition, the great majority having former editions, which contain the criticised matter.

Prof. Cook quotes E. R. Root as saying that "digestion is the separation of the nutrient part of the food from the non-nutrient, and the conversion of the nutrient into a liquid fit to mingle with the blood." This is not Mr. Root's statement, but a direct quotation from Mr. Thos. Wm. Cowan, and, with all deference to Prof. Cook, Mr. Root writes us that he should not know whether to accept Mr. Cowan's or Prof. Cook's definition even yet. When doctors disagree, who shall decide?

Regarding the statement of the poor quality of honey from apple-blossoms, so much proof was furnished Mr. Root to the effect that such honey was of the very finest quality in color, body, and flavor, that the 1901 edition contains a statement praising that kind of honey in the highest terms.

Regarding the other points referred to in Prof. Cook's review of the "A B C of Bee-Culture," the 1901 edition either does not contain the statements which are called in question, or else said statements are modified to conform to the knowledge of the present time.

Mr. Root has sent Prof. Cook a new book bearing the date of 1901, in which he will see that his suggestions and corrections have been generally adopted; for, be it said, a copy of the 1899 edition was sent to Prof. Cook, requesting him to point out its errors or its misleading statements, which he did.

Bee-Keeping for Women.—When the statement is made that bee-keeping is just the thing for invalids and women, a quiet smile is likely to be seen on the face of the bee-keeper who works hard at his business from "dawn to dewy eve," and who lies down at night more worn out than the average farmer. He knows that bee-keeping takes work—hard work—and a lot of it. He knows that he is no invalid, and yet the business requires all the strength he has. As a matter of fact, when bee-keeping is spoken of as a business into which invalids and women can enter and rapidly make a fortune, the realm of nonsense is entered.

And yet, taken in the right sense, it is not so far out of the way to say that bee-keeping is just the thing for an invalid woman. Not perhaps for every one, but for every one who has taste and adaptability in that direction. Indeed, there are not wanting those who testify that with poor health and too little strength for almost any physical

exertion, when the time comes for the merry hum of the bees in the spring, they can go to work at their pets, using up their strength to its limit every day, but every day finding that strength on the increase.

There are two reasons for this. One is that they are kept out in the open air, that of itself being enough to make a vast difference in most cases. The other reason is the intense interest that bee-keeping begets. Many a bee-keeper will readily recall the time when he had not more than five or six colonies, and when at the close of a hard day's work in some other direction he has worked an hour at his bees, and when everything was done that he could find any reasonable excuse for doing, he would reluctantly stop, with regret that there was nothing more to do. If the occupation had been almost anything else, he would have found himself so tired that he would have been glad to have shortened up the task.

The woman who enters bee-keeping with no knowledge of the business, and with no love for it, but only with the thought that she may make a fortune at it, will be badly worsted in the outcome; but if she has some taste in that direction, and goes at the matter reasonably and intelligently, she may find a delightful recreation, and with gradual increase of colonies she may add to her pin money a sum not to be despised.

The attention needed by the bees can be given at a convenient time so as not to interfere with other duties, supposing that the number of colonies is not large, and when the number becomes sufficiently large, help at other duties can be obtained. In any case, it will not be hard to get help from "the lords of creation" in any part of the work that requires much physical strength.

Mrs. Axtell's article on this subject in this week's number will be read with interest, particularly by the women of the bee-keeper's family.

Immune to Bee-Poison.—One of the German bee-papers reports that "Dr. J. Langer investigated 164 bee-keepers, and found 11 of them immune to bee-poison from the start; 126 became immune after a time; and 27 remained as sensitive as ever. Some lost their immunity, and sometimes suddenly thru sickness." So says a Stray Straw in Gleanings in Bee-Culture.

Editor Root says that he has never yet met a person who is immune to bee-poison from the start—that is, one on whom there would be no swelling at the first sting. Of course, there are persons who never can keep bees, owing to the fearful effect of the poison caused from stinging. The result of the investigation made by Dr. Langer shows quite conclusively that after a time the great majority become almost completely immune to bee-poison.

When we first began to keep bees we suffered greatly from the effect of the bee-poison. We remember very distinctly being stung above the eye, on one occasion, and the next morning we could scarcely see anything with that eye. After keeping bees a few years, and being stung more or less, we noticed that the pain became less after stinging, and that there was scarcely any swelling at all. Now, when being stung, we scarcely realize it half an hour afterward, unless it is a very severe case.

"Practical Lessons for Beginners in Bee-Culture," by Rev. J. D. Gehring, of Douglas Co., Kans., are begun in this number. There will be several of the lessons, forming a series, which we trust will be read with interest and profit, especially by those who are inexperienced, and have so many kinks to learn in connection with bees and bee-keeping.

It may be true that "anybody can keep bees," but it is certainly true that anybody can not keep them profitably or successfully without making a careful study of the business. While everything can not be told in the bee books or papers, yet there is very much that can

and must be learned by reading. We all learn by picking up an idea here and a thought there. Then in the aggregate there is quite a good deal of practical value gathered together. It is much like the bee when getting the nectar which it transforms into honey—a drop here and a drop there, of sweetened liquid, then to the hive where it is “boiled down” into the honey that is so delicious. We must, after reading, “boil it down,” by thought and meditation, to the consistency that shall make it usable and valuable. Thus will our reading, of whatever kind, prove to be helpful and profitable.

Contributed Articles.

(Edition of 1899-1900.)

No. 2.—A Review of “A B C of Bee-Culture.”

BY PROF. A. J. COOK.

(Continued from page 149.)

PAGE 147—It is stated that there are 53 different varieties of goldenrod. This is an incorrect use of the word variety. The goldenrods are species. The same as our bee—*Apis mellifera*. A variety or subspecies is one of the less markt divisions of the species. The Italian bee is a variety or subspecies of *Apis mellifera*. In the figure on the same page, the three plants each represents a species.

Page 172—I am surprised at Mr. Root's style on this page. “Tarnal nuisance” and “pawed out” might do in *Gleanings in Bee-Culture*, possibly, but some would quite object to them in a book like “A B C of Bee-Culture.” Still, this is a matter of taste, and I may be hypercritical.

Page 173—The typographical errors in this book are few, but there was evidently faulty proof-reading in referring to the first figure on this page. The letters should be reverst.

Page 174—The figures of the book are usually clear and admirable, but the second one on this page I think a failure. I think the first one on the previous page gives a much clearer idea. This figure appears to me like a small cube inside a larger one. I should consider it a right-angled figure.

Page 177—A strange error occurs here, for which I fear my own poor chirography may be to blame. Mr. Root speaks of the coccids as scab insects. This certainly should be scale insects. I have a dim recollection that in one of my own articles written some years ago, the typesetter made my scale a scab. I fear that this is what misled Mr. Root. The statement is also made that these honey-dew-secreting insects—plant and scale lice—propagate in the topmost limbs of the trees. I doubt if this is correct, in fact I know it isn't. They attack the tree anywhere where they may happen to locate. All female scale insects, and many plant-lice, are wingless, and so are conveyed from tree to tree by bird or other insect. If they are left on the topmost branches by these carriers, they would very likely locate there. They are only carried when very young, and they are at this time exceedingly minute, and if left to their own means of locomotion, make progress slowly. We see, then, that accident alone determines what part of a tree they will occupy.

Page 179—I am quoted on this page to the effect that much aphid honey-dew is deliciously wholesome, and the honey from it superior. Mr. Root follows this with the assertion that “the ordinary stuff that we have in Ohio, and that which I have seen in other localities, is usually of a dark color and rank flavor, to me very sickening and unpleasant, and as Prof. Cook says, it should be sold to bakers and others desiring an inferior or strong-flavored honey.” The error Mr. Root makes here is easily explained. I have no doubt but that the honey from *Aphides* is almost always of pleasing flavor, and so always makes good honey. I have never seen a case in which this was not true. While in the Yosemite last summer, away upon one of the highest peaks (Cloud Rest) 10,000 feet above the level of the sea, we ran across plant-lice on the pine trees. There were no bees in the region, and the honey-dew was present in great drops so that it was very easy to test it. All of our party pronounced it excellent. Perhaps I should say this was before they were told where it came from. This aphid honey-dew is common every year in nearly all sections of the country. Yet it is so

unobjectionable that almost no one knows it. The bees take to it, and I doubt if they will often leave this even for the nectar of flowers. I have certainly known them to work on the honey-dew of the larch right at the time of the white clover bloom. Many of the bees were gathering from the clover, others were taking from the honey-dew. The mixture all sold readily as clover honey, and I am sure no wrong was done any one. The bark-louse, or coccid honey-dew on the other hand, is not so common, and is only present in certain years when the scale are very numerous. Another fortunate peculiarity is that it is distasteful to the bees, and they gather it only in times of drouth when the flowers are not secreting. Indeed, the scale insects of the East prosper most in a succession of dry seasons, just at the time when the flowers do not furnish nectar. The honey from this source is dark and rank, and well deserves the opprobrium Mr. Root has put upon it. I think our bee-keepers should all understand this distinction, and should become acquainted with the aphid honey-dew. It may be flavored. If so, it has not come under my observation.

Page 185—Two mistakes of faulty proof-reading are evident on this page. One of the beggar-ticks—*Bidens frondosa*, is referred to as *Burr marigold*. This should be *Burr marigold*. Likewise, *Leonurus cardiaca* should be *motherwort* instead of *motherwort*.

Page 193—Our author refers to the thorax of the bee as the shoulders. He shows the abdomen detach, and states that it is detach from the shoulders. This use of the word is not warranted by any good usage that I know of, and as thorax is a perfectly good word, I see no need of coining a new one.

Page 204—The letter “O” is omitted as marking that division of the work. Uniformity would be better observed if the “O” were supplied.

Page 213—A case of misspelling is made very prominent on this page. I think it is always spelt *jasmine* or *jasmin*. I have grave doubts as to the honey from this or any other plant being poisonous. It would be so easy to make the mistake. We know that honey makes some people seriously ill whenever eaten. That it might occasionally make a person sick who usually was proof against the ill effects is easily to be believed. I can understand how Xenophon might have made a mistake. A lot of hungry soldiers eating freely of honey would in almost any case give employment to the doctor. We know that falsehood once on the race-course spans the world while truth is harnessing her steeds. We can easily see how this idea of poisonous honey, once started, would run rapidly. If *jasmine* or *mountain laurel* do furnish poisonous honey, I can not understand why the evil effects are not more frequently experienced. I have received this so-called poisonous honey several times, and have eaten it without any ill effects. If I found any really poisonous honey, I should look to find if the arsenites had not been used at the time when the bees gathered the honey. I have known of cases where the larvae of bees have been seriously poisoned by receiving honey poisoned with *Paris-green* which had been applied at time of bloom in the apple-orchard.

Page 214—In describing the way that bees get pollen, Mr. Root credits the tongue with an important part of the work. I have never noticed that the bee used its tongue to get the pollen. The antennæ cleaner on the front leg gathers the pollen, not from the tongue but from the antenna. I hope others will observe and see whether Mr. Root is right in the explanation. My own observations would the rather teach that the compound hairs which clothe the body so generally, and the legs of the bees, are the instruments used to gather the pollen. I doubt if the tongue has anything to do with it.

Page 222—Our author does well in using the development theory to account for the color of blossoms and birds. It is perhaps modest to say, “I can not positively affirm.” I think, however, that no scientist to-day has any use for the interrogation-point in using the evolution hypothesis to account for the color in flower, fruit or bird. To question it shows that the writer or speaker is not conversant with the latest in scientific research. We are glad that Mr. Root has never been one to be afraid of truth.

Page 227—Is it wise to say that ten-day queens may be just as good as any? If I am right, experience, no less than theory, would argue against such queens. The bees give us a good lesson in this matter. When things are normal they start the queen from the egg. I think the wise breeder will always do the same.

Page 230—It is very interesting if Mr. Root's views regarding the presence of eggs or larvae stimulating the

young queens to lay be correct. If it be true, I have no doubt it is owing to the fact that the bees were stimulated so that they fed the queen differently. Is it not more probable that it was simply a coincidence? I think a good many experiments should be tried before we reach this conclusion.

Page 232—That the thread which evinces that mating has taken place is absorbed into the body of the queen, I think very improbable indeed. It is of a kind of tissue that would be slowly absorbed, and want of contact would make absorption very slow. That it could dry up and disappear is easy to believe.

Page 250—I am not at all sure that bees do not communicate. A study of their brain would make this seem possible. That they are one-ideaed insects seems also to me not proven, as the judge would say. The very case Mr. Root gave, I think would warrant this conclusion. When bees are not gathering, how quickly honey some distance from an apiary attracts multitudes of bees if exposed. I think Sir John Lubbock would give a decided "no" to this idea, that bees do not communicate. If any man living has a right to an opinion regarding the intelligence of ants and bees, it is he.

Page 255—Here again Mr. Root advises the use of the lantern. I have tried the night-working with bees several times when necessity compelled it, and I should be slow to recommend it, especially to a novice.

Page 261—Mr. Root's commendation of California in view of the prolonged harvest is very timely. The white sage of the valleys precedes the black sage of the canyons, and, as he so well says, "the bees first commence working in the valleys and then gradually fly higher up as the blossoms climb the mountain sides, giving a much longer season than we have in regions not mountainous." There is another fact that greatly extends the period of bloom in California—many flowers, like the white sage, are in long racemes which bloom centrifugally, that is, the outside flowers bloom much earlier than the inside flowers, or the lower flowers blossom earlier than the upper. This, of course, greatly prolongs the period of bloom, and consequently, the honey season.

Page 276—What warrant is there for stating that formic acid is a vegetable acid secreted from the honey and pollen? I think there is none. I believe that it is equally untrue that the poison is more pungent when the bees are working. The formic acid is a secretion of the insect, and in no sense a vegetable secretion. If the poison is more irritating at one time than another, it is because there is more of it. When bees are idle, all their functions will be less active and so less poison would be secreted. Yet I have my doubts in this matter. I have never known bees to sting worse, or the wound to be more painful, than in the autumn when the harvest was all over.

Page 277—I am surprised that our author teaches that stinging does not kill the bee. Who has not known cases where thousands of bees have died from stinging? In the case of the cow killed by being stung, which I described in the bee-papers some months ago, so many of the bees lost their lives that the apiary was sadly depleted. I have proved by direct experiment, that losing the sting means to lose the life. Death, however, may not immediately follow the wound.

(To be continued.)

Adaptability of Bee-Keeping to Women.

BY MRS. L. C. AXTELL.

I AM surprised that more women do not take up bee-keeping as a business, for I am sure they would find it profitable, conducive to health, and a pleasure, if followed perseveringly.

As bees never ought to be handled except in warm weather, in taking care of them there is no need of exposure in unsuitable weather, as is often necessary in other outdoor work, especially in caring for poultry. I have often seen women out in a pouring rain gathering up little chickens, and have done it a great many times myself.

Keeping bees is light work, requiring but little heavy lifting, except when putting the bees into the cellar for winter, and that is not really necessary, as they can be made warm and dry and left on the summer stands. Simply remove all extra combs and surplus from the hives, and fill the empty space with dry chaff, first covering the combs the bees occupy with thick cotton-cloth, to prevent the chaff from falling down among the bees.

If bees are gentle it is a real pleasure to me to see them flying around and hear their happy hum among the flowers—they are company just as all life is company. A few neatly painted hives set in the front or side yard add to the beauty of the premises, making a home look attractive. I would not have the bees very near to the walks, as some people are afraid of them.

Some of our most successful apiarists are women. Most men bee-keepers have women helpers. Indeed, much of the work to be done with the bees seems just adapted to women, as they are more likely to look after the little things than the men. Where a home is heavily mortgaged, if the wife or grown-up daughter would engage in bee-keeping, she could do much toward lifting the heavy burden from the shoulders of the husband and father. Even if there are no debts to pay it is nice for a woman to have some money which she feels she has earned herself, as there are so many ways in which she can use it—for benevolences and the like—and there is real joy in giving what one earns one's self. Then, it is quite a help to have plenty of honey to use; it doesn't require any preparing or cooking, and if unexpected company comes a section of nice honey or a dish of candied honey helps to fill up the table, and most people enjoy eating it.

I think one great reason why more women do not take up bee-keeping is because they are afraid of the stings. But if Italian bees are kept, and handled gently, working with them only when the weather is warm and sunshiny, always giving them a puff or two of smoke at the entrance before opening the hive, having the face protected with a bee-veil and the wrists tightly wrapt, a woman will soon become so used to them that she will have no more fear of the bees than of a sitting hen. Bees resent quick movements so it is well to move slowly and easily when working with them. It might be well for two beginners to work together, one to use the smoker while the other works, but care must be taken not to use too much smoke. The odor from a crushed bee seems to anger them, but a little smoke will subdue them.

When a woman makes up her mind to begin bee-keeping she must begin right. Buy good hives, and good colonies of pure, gentle Italian bees—not the very yellow ones, as I have had the very yellow Italians that were worse to handle than any blacks or hybrids we ever had. The queens of such colonies should be destroyed, and ought never to be sold to beginners. Then the next thing she should have is a good text-book on bees—don't buy an old one because it is cheap, but get one that is up with the times. Follow the book very closely the first few years, and pay little attention to what a neighbor advises unless you know him to be a practical apiarist. It is better to have few colonies at first, and I am not sure but that it is just as well to have five as one, as it seems hardly worth while to spend the time reading up for only one colony when one can just as well look after three or five.

Many women will say they have no time to spend in caring for bees, and yet they spend much time working in the garden, and with flowers, or poultry, and none of these things pay as well for the time expended as do the bees. Better have a few colonies of bees, and a little less of something else—perhaps fewer ruffles and tucks on the children's clothes, or make less pies and cakes.

In order to make bee-keeping easy and successful we must do everything at the right time, and have things in the right place. Bees will not put up with slipshod ways. We must follow their instincts more or less, and help them in following them out to the best advantage.

If weak women would have the care of bees all to themselves, and be removed from all other work and care, very many of them would find their health. I know this from experience. Working with the bees has done me more good than hundreds of dollars spent for medicine could have done.

There is something very fascinating about bee-keeping, and when once a woman gets interested she forgets her aches and ailments, especially if she has enough colonies to look after to keep her busy. When swarming begins, and being short of help, she will see to it that the swarms are cared for if she is only half alive, and the work will become so exciting and exhilarating that before she is aware of it she will be on the fair road to recovery. She has been working out-of-doors, breathing the fresh air, been somewhat sunkist, heard the birds sing, and forgotten her own troubles; and bodily ailments have taken unto themselves wings and flown away. Warren Co., Ill.

Large Brood-Chambers For Queen-Rearing.

BY G. M. DOOLITTLE.

A CORRESPONDENT writes thus: "Will you please tell us something about rearing queens in large brood-chambers, in the American Bee Journal? I use a large one-story hive holding 18 frames, running parallel with the entrance, so I can not very well use the plan requiring an upper story, as given in your book. How would you proceed to rear queens in such a hive as the one spoken of above?"

The hive spoken of by the correspondent is very similar to the one which I used when the plan of rearing queens in a hive having a laying queen in the same, first came to my vision. Some years before I had made four hives on the "long-ideal" plan, which was brought to public notice a score or more of years ago by D. L. Adair, of Kentucky. These hives were used a few years for extracted honey, but laid aside, as I found it paid better to work my apiary more wholly for comb honey.

Soon after this, D. A. Jones, of Canada, came out with a new plan for working for comb honey, in which he placed the queen and six to eight combs of brood in the center of a long hive and filled out the ends with sections, claiming that in this way large quantities of section honey could be produced without much swarming; and as these long-ideal hives would be just the thing to try the experiment with, it would cost me very little to see what there was in the plan. So I changed the combs and bees from my regular hives back into these hives again, put in two queen-excluding division-boards, so as to shut the queen on five or six combs in the middle of the hive, according to his plan, when the first thing which came to my notice in opening the hives a week later was sealed queen-cells wherever there was any unsealed brood left which the queen did not now have access to. These I carefully removed, till there came a time when work crowded so that the removing of these cells was neglected till they hatched, went out of the hive, were fertilized and commenced to lay, so that I had two laying queens in some of these hives. Had it not been for this experiment in producing honey on the Jones plan, in all probability "Scientific Queen-Rearing" would never have been written, for right here was where I got my first ideas on the subject which finally developed into the matter found in the book.

In carrying out the Jones plan wide frames of sections were put next the apartment containing the queen, and, every ten days or so, some of the combs that had been with the queen, and were now full of eggs and brood, were taken out and placed beyond the wide frames of sections toward the ends of the hive, and empty combs placed with the queen to take the place of those removed. In this way the queen was given all the room she required for laying, the bees kept from swarming, and the bees coaxed to work in the sections to the greatest advantage. And it was on these frames of brood, placed beyond these wide frames of sections, where these queens were reared as spoken of above.

It will be noticed that there were wide frames of section between the combs where these cells were reared and the queen-excluding division-board which kept the young queen in her place, and these wide frames had separators on them which tended to keep the young queens from going to the perforated zinc and quarreling thru it with the old queen. As the plan of securing honey in this way was a failure in my hands, these hives were cast aside again, and the upper-story plan was adopted as given in my book. But I have found from long experience, that, where ever there is unsealed brood on which the bees cluster, but from which the queen is excluded by means of perforated zinc, enameled cloth with a hole or two in it, or a division-board with a crack in the same, the bees will generally build queen-cells on these combs, and if it is so that the young queen hatching from these cells can not "touch noses" with the old queen, and if there is a place of exit from the part of the hive in which this queen hatches, she will generally, in due time, become fertile, when a honey-flow is on, and go to laying, the same as she would if there were no other queen in the hive.

Hence, to rear queens in such a hive as our correspondent uses, all we have to do is to fix the same so that two or three combs of brood can be put in one end of the hive, and between these combs of brood and the apartment having the laying queen, put two queen-excluding division-boards, these latter being half an inch apart, so that the queens can not touch each other. From past experience, my way of fixing such hives would be to keep the laying queen in the rear end, on as many combs as I desired her to occupy, placing next to her apartment a queen-excluding division-board. I would now place two empty combs next to this

division-board, and immediately in front of these but in another queen-excluder. I would now fill out the remaining space between the last excluder and the front end of the hive, or entrance, with combs of brood and honey, and rear queen-cells there, and have them fertilized from the same, as I gave in my book.

Now, while I have told what I would do when using such a hive as the correspondent says he is using, yet I do not feel like closing this article without saying that, in a locality like central New York, such a hive is not the one for the practical bee-keeper to use if he wishes to produce the most honey with the least capital and labor.

Onondaga Co., N. Y.



No. 1.—Practical Lessons for Beginners in Bee-Culture.

BY REV. J. D. GEHRING.

I WAS working in my apiary one beautiful May morning transferring brood-frames from one hive to another. It was what bee-keepers would call a typical bee-day. I had hived four swarms that morning, and the bees were fairly crazy in their eager rush and hum, gathering in the rich nectar which the blooming white clover was yielding in great abundance that season. I was stooping over an open hive, in the act of taking up a frame of brood, when I heard my name spoken, and some one saying, "I would just like to know what you are doing with that hive of bees?"

Straightening myself up hastily, I saw directly in front of the hive at which I was working, and standing within a few feet of the entrance of the same, a ruddy-faced, cheery-looking man, whom I knew as Reuben Bond, a farmer living about four miles out of town. At the same moment I also saw that Mr. Bond had hitched his team of beautiful young horses to a post of my yard-fence, not more than 25 feet from the first row of the bee-hives. Taking in the significance of the situation at the first quick glance, I for the moment ignored his friendly salutation, and said:

"You are in danger there, Mr. Bond—better come away at once. Your horses are in danger, too, where they are. Suppose you take them around into my back yard, while I close these open hives and get ready to talk to you where it is more quiet and safe than it is here at present."

But, tho I had lost no time in being decently polite, my admonition came too late for Mr. Bond. My last words were scarcely uttered when I saw him slap his right hand to his face, and, uttering some incoherent exclamation, start on a stooping run toward the house, and before I could do or say anything, darted down the open stairway of the cellar, and was out of sight in a twinkling.

I closed my two open hives and followed him, directing my son, who just then came around the corner of the house, to take care of Mr. Bond's team. I found the runaway just inside the door of the cellar, puffing and blowing, and rubbing the end of his nose. Noticing his action, I knew where to look for the instrument of torture. Drawing him toward the open door, where I could see, I gently lifted the sting out by placing my thumb-nail under the poison-sac, instead of grabbing hold of it with thumb and finger, as bee-sting doctors usually do, and thus squeezing into the wound all the formic acid contained in the little sac attach to the sting.

"Never rub a bee-sting," I said to Mr. Bond, "until after you, or some one else, has performed the operation I have just shown you how to do properly. It's a lucky thing the little fury didn't hit you in the eye. We can apply almost any kind of a remedy to the nose, but not to the eye."

"Aint it queer, tho, how quick those pesky bees left me when I got in here," remarked Mr. Bond, as he gently rubbed the end of his nose. "What do you do for bee-stings?" he asked, as we ascended the cellar-stairs.

"Usually I pay no attention to them," I replied; "because usually I am stung when I am too busy to run away from my work and doctor bee-stings. I seldom get stings in the face, however, because I wear a bee-veil whenever I do work among the bees that is liable to put them on the defensive. They always fight in defense of their home and property, Mr. Bond, and seldom for any other reason. And there is no telling when bees will not sting when they are being disturbed, and they suspect that the disturber intends some sort of mischief to them. The principal reason, however, why I wear a bee-veil is, because they always aim for the eyes when they have a chance and the disposition to sting. And, as I always need my eyes, even more than my

hands, and nose, Mr. Bond, when I am busy with a hive of bees, I wear a veil to protect them. When a man tells me—even if he is an old bee-keeper—that he never wears a veil in his apiary work, and that he never gets stung, I am disposed to think that he is talking thru his last year's hat.

"Now come with me to my honey-house and I will see what I can do for your nose, Mr. Bond. I use alcohol for bad stings—red-hot ones, like the one you got on your nose—when I use anything at all. I will let you try it.

"Here," I said, after we had entered the room in the honey-house that I called my workshop, "I always keep a bottle of alcohol for emergencies. A small sponge saturated with some of it and applied to your nose for about ten minutes will relieve the pain and reduce the swelling. I think the alcohol neutralizes the formic acid in the sting-wound."

"Now, please tell me," said Mr. Bond, after several minutes silence, "why I got stung the minute I stepped in front of that hive you were working at, and you, with your hands and your nose right down among the bees, wasn't touched."

"That's easily explained, Mr. Bond," I replied. "I account for it in this way: My bees know me. They are accustomed to my presence and to my manipulations. You, on the other hand, are a stranger. They know you as such by sight and smell. Then, to make bad worse, you plant your perspiring person directly in front of their only door, and so near that they can't help but regard you as an intruder, with evil intention toward them. There are always a number of bees on guard at the entrance of their hive, and these guards are very vigilant. No doubt they saw you at once, and one of them took aim at your face and struck your nose. A hot sting like that is never an accidental one, I can assure you. It's a good rule never to stand in front of a hive of bees, or even to walk past near the entrance unless you can't possibly do otherwise."

"I believe in that rule implicitly since my late experience," remarked Mr. Bond. "But, will you now tell me why those bees that followed me to the cellar left me as soon as I got inside the door?"

"They left you because bees never go into a dark room if they can help it—except, perhaps, to steal honey—and, because they were satisfied as soon as you were out of sight when you got there. And here let me mention the fact for your benefit, that a person who is being stung and followed by a lot of angry bees can do nothing that so promptly and completely defeats them as to run into a room. A dark room, of course, is best, but any room will do better than to run about outside vainly fighting them. They give up as soon as they find themselves prisoners—always and everywhere."

"That's a very interesting fact to know," remarked Mr. Bond; "but I don't quite understand what you mean by saying, 'my bees know me.' You don't mean by that that bees in general have sense, do you?"

"Yes, Mr. Bond, I certainly believe that bees have sense. But my belief is surely not orthodox, for, everybody—even the vast majority of bee-keepers—give bees credit for a high degree of instinct, and nothing more. But can you tell me what instinct really is? Can anybody tell me what the distinction is between instinct and intuition? By intuition we know things as by instinct. That is, intuition is knowledge which is not acquired thru the reasoning process. No one can prove that bees can not and do not reason. I can mention several things that bees do that they couldn't and wouldn't do by instinct alone. Here, for instance, is a sample of their work"—taking a pound section of white-clover honey from an open crate near me and holding it up before him as I spoke. "Examine it and see if it isn't perfect in every detail. See how white and even the comb is, and how beautifully it is fastened to the wood of the section all around. When they put that honey into those cells it was not honey, but nectar, or sweet water, very little thicker than water. They converted it into honey, thick as the best sugar syrup, by evaporating it. And how, do you suppose, do they know that evaporation is necessary? and how do they do it? They know by instinct, I suppose, and they seem to know, too, that fanning the open cells of sweet water will thicken it to its proper consistency.

"The bees seem to have sense enough, too, to understand that this fanning work is best done during the night, when all the nectar gathered for the day is stored in the combs, when the hive needs extra ventilation on account of the heat caused by the whole colony being at home, and because it saves precious time. It's the bees that do the work of gathering the nectar that must also do the evaporating work. Drones will not do it, because it's work, I

presume; and the baby bees in the hive can't do it before they have learned to fly.

"Now, Mr. Bond," I continued, "look at the surface of this comb. You see it is perfectly smooth and regular, and almost snow white. I have 1,600 like this stored in my honey-room just beyond the partition, all filled and sealed like this, since the first of this month, by 16 colonies. You see, they not only know how to work, but how to do the best kind of work. They make no mistakes, and they never seem to forget anything. One of the most curious things about this comb work is, that there is an air-space between the honey and the wax with which the surface of the comb is covered, or sealed. How they manage to produce this air-space, and how they know it to be necessary, are bee-secrets which have never been whispered into inquisitive ears. But bee-keepers do know that, but for this air-space, that beautiful white surface of the comb would be an impossibility, because without it the honey would come in contact with the wax, soon softening it, causing it to break up and let the honey ooze out. You can see how important this little item becomes when you realize the fact that with this air-space omitted by the bees, shipping comb honey to the markets would be out of the question. We would be limited to extracted or liquid honey."

Before I could proceed to explain further, Mr. Bond suddenly jumped to his feet and looked anxiously out of the window that afforded a view of the apiary and the street beyond. I knew what the movement meant, and could afford to smile as I said:

"You are anxious about your horses, Mr. Bond. Well, you needn't be. My boy put them into the stable and fed them soon after the fracas. If you will go with me to the house, we will now have some dinner, and I will show you my wife and children. Then, if you care for another dose of bee-talk, I shall be glad to have you spend the afternoon in the shop with me. I have a lot of sections to put together and prepare with comb foundation, and I can talk while I work."

(To be continued.)



REV. J. D. GEHRING.

The subject of this sketch was born Dec. 15, 1837, at Buchberg, situated at the foot of an isolated haystack-shaped mountain bearing the same name. It is presumed that the mountain existed before the town, hence it is also presumable that the town was named for the mountain.

From the top of this mountain the snow-clad Alps could be seen. The famed "Rhinefall" at Schaffhausen, Switzerland, is within hearing distance of Buchberg.

His father, at the age of 60, emigrated to the United States in 1848, with wife and eleven children, and bought a small farm in Fulton County, Ohio.

Mr. Gehring enlisted as a private in Co. C, 27th Wis. Vol. Infantry, served three years, and was mustered out a 1st lieutenant, and as a cripple for life. Disability was caused, mainly, by a sharp-shooter's "minnie ball," which past thru the back of his neck, fracturing the vertebra, and resulting in partial paralysis of the left side. Other serious results developed as time made history and old age.

He began keeping bees in Parkville, Mo., in 1884, started with two colonies, both presents from friends who didn't know what to do with them, and were anxious to get them out of the way for fear of getting stung. Transferring these two colonies to "movable-frame hives," and handling over 300 pounds of white-clover honey, in pound sections, the first season, persuaded his then easily impressible mind to believe that he had now ceased to be a keeper of bees, and had become a bee-keeper instead. Mr. Gehring keeps his front door latch-string always hanging outside for visiting "friends" of the ancient craft.

Thru a somewhat remarkable combination of circumstances he and Miss Anna J. Doty were brought together in 1866, and have continued the happy union as husband and wife into this the 20th century. Five children—four

daughters and a son—are in evidence to propagate the parental union of German and Scotch-Irish blood.

It may not be amiss to say for Mrs. G. that *she loves bees*—in the abstract sense—but bees never learned to love her—not, however, because she is not a lovable woman, but, rather, because her husband's bees never seemed disposed to let her get intimately acquainted with their way of doing things when they were out of humor. It was not owing to any fault in her character; nor could the fault have been owing to her Scotch-Irish descent, that Mrs. Gehring's earnest effort to become her husband's "help-mate" in bee-keeping was a failure from the start. It remains a puzzle in Mr. G.'s mind to this day why bees—well-trained and usually well-behaved like his were—should behave so badly toward a sweet, mild-dispositioned and loving little woman as ever blest the life of a bee-keeper. But these bees did treat her badly—on a certain special occasion—and the resulting coolness between her and the whole apiarian tribe will end only with life.

Referring to the Falls of the Rhine, in Switzerland, Mr. Gehring writes us as follows:

The Rhine is one of the most interesting rivers in the world. Its source is among the Alpine glaciers of Switzerland, and its waters enter the sea thru the lowlands of Holland. On its banks is every variety of scenery, towering mountains, wild and picturesque rocks,



Falls of the Rhine at Schaffhausen, Switzerland.

dense forests and fertile plains. It flows between flourishing villages and populous cities, castles and ruins with which a thousand legends are connected. Along its course for many centuries great historical events have been taking place; the victories and defeats of the Romans, the heroic deeds of the age of chivalry, the coronation of kings, the meetings of ecclesiastical councils, and the wars of modern times. We can not wonder that such a river is regarded with little less than reverence, and that great numbers of tourists come from all parts of the world to look upon it.

The upper Rhine is especially remarkable for beautiful scenery. The Falls of the Rhine near Schaffhausen form one of the finest cascades in Europe. The breadth of the river above the falls is 126 yards, and the height of the unbroken fall is about 60 feet. If the rapids above and below are taken into consideration, the total fall is nearly 100 feet. Not far above the falls is a bridge known as the "Rhinefall Brücke" (Bridge of the Rhinefall). High above the river on a wooden rock stands the Schloss Laufen (castle of the rapids). From a garden of this picturesquely situated edifice the best view of the falls may be obtained, one gallery projecting over the roaring, seething cataract.

In the year 1845, when eight years of age, my Aunt Ann, a sister of my mother, took me on a visit to my grandparents, who resided about nine miles northeast from the falls, and about 18 miles from my home on the banks of the Rhine below the falls. On the way we past thru Schaffhausen, and stood together, hand-in-hand (I being afraid to stand alone) upon the bank of the river viewing the awe-inspiring scene. The spot where we stood was a little way below the cataract, not far from the old mill seen upon the left bank in the picture. The railroad bridge above the falls was not there then. There was no railroad in all Switzerland before 1850. JOHN D. GEHRING.

The Chicago Convention Picture is a fine one. It is nearly 8x10 inches in size, mounted on heavy cardboard 10x12 inches. It is, we believe, the largest group of bee-keepers ever taken in one picture. It is sent, postpaid, for 75 cents; or we can send the American Bee Journal one year and the picture—both for \$1.60. It would be a nice picture to frame. We have not counted them, but think here are nearly 200 bee-keepers shown.

Questions and Answers.

CONDUCTED BY

DR. C. C. MILLER, Marengo, Ill.

(The Questions may be mailed to the Bee Journal office, or to Dr. Miller direct, when he will answer them here. Please do not ask the Doctor to send answers by mail.—EDITOR.)

Drones and Swarming.

1. If I destroy all the drones from a colony that wants to swarm, will this prevent swarming?
2. When a swarm leaves a hive, and I have the Alley queen and drone trap on, are you sure the swarm will return to the hive?

SUBSCRIBER.

ANSWERS.—1. No; but it is thought there is less likelihood of swarming if drones and drone-brood are kept down. But it can by no means be counted on as a sure prevention of swarming.

2. If you have only one colony, you may count to a dead certainty that in the case you mention the swarm will return to the hive. In any case you may be sure that the swarm will not go off, and under ordinary circumstances that it will go back to the hive from which it issued. But if it should happen that a little while before another swarm had issued and returned to its hive, the bees still making a loud call at the entrance of the hive, your returning swarm might return to this latter hive instead of returning to its own.

Tall vs. Square Sections, Etc.

1. I began bee-keeping last year and now have 36 colonies. My troubles are caused by the great variety of bee-supplies. I have 60 supers meant for 4¼x4¼ bee-way sections. Now I want tall sections with no bee-way. I think of buying 60 supers designated "L." These take 4x5 sections. Now, can I alter the old supers so they will carry 4x5 sections? I'm afraid robber-bees will get in.

2. Will filling all cracks with white lead injure bees in any way?

3. I think of using full sheets of light brood foundation in all frames when hiving swarms, these sheets to be wired. Is this a good plan?

4. Do you prefer tall sections with no bee-way to the old-style square ones with bee-way?

5. Are the combs less liable to be built together? and do the bees enter them as readily tho they sit across the frames?

COLORADO.

ANSWERS.—1. There are so many different surplus arrangements that take 4¼ sections that it is impossible to tell how much change would be required; but by the exercise of a little ingenuity almost any of them could be changed to take 4x5 sections.

2. It will do no harm.

3. An excellent plan.

4. It is largely a question of one's market. Some prefer one and some the other.

5. You will probably find no difference.

Bees Diseased and Dying—Closed-End Frames.

1. I took 12 strong colonies of bees on shares last spring. One or two swarmed and almost all stored a little surplus. When I prepared them for winter—that is, took off the supers—they had plenty of honey and appeared to be strong, and along about January 1st, I examined and found all dead but three. On examining the combs of the dead ones I found fully ⅓ of the cells with cap brood, with a small puncture in the cap, and an offensive smell, not like a glue-pot. I took five back to the owner last summer that were too weak to defend themselves, and I didn't want any robbing. The owner (a beeman of 20 years' experience, so he says) claimed it was caused by moths. The bees I have here haven't any moths in the hives; besides, I haven't any trouble with the moth, anyway.

2. If it is foul or pickled brood, why do they die in winter without any brood, and be stronger in bees than some of my weak ones?

3. What course should I take to prevent it from spread-

ing to my own bees? I fear they got some of their honey. The diseased colonies have been destroyed by fire and water, and every caution preserved all summer, or while I have been suspicious.

4. I went to a sale of a bee-keeper who made hives to sell of his own invention, and bought several for almost nothing. Knowing nothing about the hive, I would like to be enlightened. I enclose a pen outline of it. There being no space at the ends of the hive, will the bees winter as well as on Langstroth frames? It is what I would call a closed-end frame.

INDIANA.

ANSWERS.—1. I don't know what the trouble is, but it can not be charged to the moth.

2. Whatever disease of the brood, or whether any, there seems to have been some wintering trouble that would produce such loss.

3. Keep everything as snug and clean as you can, taking special precaution to prevent all robbing of infected or suspected colonies by allowing no cracks or too large entrances to invite robber-bees. Be sure that none of the suspected colonies are weak. If they are, unite them. There will be no real loss in this, even if nothing is wrong with them. Carefully study all you can find that will inform as to the brood diseases of bees, including what has been said in back numbers of this journal and Dr. Howard's brochure on foul brood. A thoro knowledge of the whole subject will enable you to judge more intelligently what is to be done than can any one at a distance.

4. It would seem from the pen sketch that the end-bars of your frames form the end-walls of the hive, after the fashion of the Quinby-Hetherington standing-frame hive. Not a large number of bee-keepers use this hive, but a few use it in very large numbers. The end-bars are sufficient for the end-walls of the hive, but some use an outside case to set down over the whole as additional protection in spring.

Basswood for Brood-Frames—White Clover—Honey in Candles.

1. Is basswood all right for brood-frames, or will they be short-lived?
2. Is there more than one variety of white clover?
3. Is there much honey used in candles?

WISCONSIN.

ANSWERS.—1. Basswood is not too short-lived for brood-frames, but entirely too lively. You probably know that it is unusually bad to swell and shrink, and it twists out of shape altogether too much for anything that needs to be as exact and permanent as a brood-frame.

2. There is the common white, and the white Dutch. The latter is said to be a large kind, and sown on rich soil it grows quite large. But so will the common, and I feel sure the two are one and the same thing.

3. Probably not. It would be very much better for the public if some of the glucose in candles were replaced by honey.

Bees Dying—What Is the Cause?

Of 76 colonies that were in fine condition about Dec. 1st, there remain alive at present 30 colonies, and I expect some or all to die soon if nothing can be done for them. They all had plenty of honey so that was not the cause, or at least the quantity. The bees could not fly one day for nine weeks. Of those that are dead, part of the bees are on top of the frames in a mass, and part in some lower corner; and all, alive or dead, have the inner part of those hives, including frames and bees, perfectly wet and soiled; also it smells very strong. All are on the summer stands. Some were in single-wall hives, some in chaff hives, some had chaff cushions over the frames, and some had none, but all are affected alike. There was hardly any honey for the bees to gather last fall, and they worked freely on half-rotten and bruised apples in various orchards; but some received their entire supply of winter food by feeding granulated sugar as late as Sept. 20th.

May it have been caused by doses of poison not sufficiently strong to kill them while gathering it? It is very probable that they received some. What shall I do for them?

WEST VIRGINIA.

ANSWER.—This is one of the times when it is painful to say I don't know, and yet I am obliged to say it. Working on rotten apples in orchards could hardly do so much mischief, unless there were cider-mills from which they

obtained large supplies. It will hardly do to lay the trouble to the general stores, for some had their entire supply of granulated sugar. The guess that there was poison in the case seems a reasonable one, but if it were poison would it not have killed the bees sooner? The thought comes that the entrances may have been closed so tight that there was something like suffocation in the case, but a man with 78 colonies has in all probability had too much experience to make that mistake. In any case the trouble was no doubt aggravated by the confinement of 9 weeks.

It is nearly certain that in your latitude bees are now flying, and there will be some good done by cleaning up all the hives and getting out the dead bees. If the trouble continues after the bees have had a good flight, try at least a few by taking away their stores and giving them sugar syrup. It is to be hoped that a good flight will do much good.

Sugar-Candy for Winter Feeding of Bees.

In the "A B C of Bee-Culture" (1891 edition, I think), there are directions for making hard candy for feeding bees, by boiling sugar with a little water. I believe Mr. E. T. Abbott has also frequently recommended such candy. I wish you would tell me thru the American Bee Journal if you have ever tried such candy, and with what results. I considered the above authority so good that I recommended it in a couple of instances before trying it myself. I also risked a few colonies on such feed and just happened to discover in the nick of time that it doesn't seem to do for this "locality." In short, one colony was dead—clustered right up against the candy—and one was about half dead, that is, a large portion were just able to hang to the combs—too far gone to crawl around. The other colonies all had a little honey yet and were all right. I hastened to give them combs containing some honey. The candy had been on only a week or two, and the colonies were in good condition when it was given. They are packed with leaves on the summer stands, and there has been no cold weather to speak of—a very mild winter here. They gnaw thru the candy and it falls on the bottom-boards about as granulated honey looks when the bees have such in their combs to use. I am sure the candy is not burned, in fact it looks just as Mr. Root says it should—"dry and hard as slabs of marble"—and about as valuable, according to my experience. What say you was wrong?

IOWA.

ANSWER—I have never had occasion to feed candy, but would have said with no little confidence that you would have no trouble whatever. I must confess that your experience staggers me, and I don't know enough to account for it. I suppose that tons of candy have been fed, and I do not remember to have read a single report like yours heretofore. It looks somewhat as if there had been so much stirring that it was stirred down to sugar, but that could hardly be the case if it stuck together as candy. If any of the good friends can throw any light on the case, it will be a great favor. Has any one else had a similar experience?

Convention Proceedings.

Report of the Michigan State Convention.

BY WM. G. VOORHEIS.

The Michigan State Bee-Keepers' Association held its annual meeting at Traverse City, Mich., Dec. 26 and 27, 1900. The meeting was called to order by the president, and Mr. A. I. Root offered prayer.

The president made a few remarks referring to present needs, and the purposes and educational work of the Association.

GETTING BEES TO WORK IN THE SUPERS.

A. S. Dobson—How can we get bees to work in the supers?

Mrs. George Jackson—Smoke them up into the sections when the brood-combs are filled with brood, and they will work there if you put on some unsealed sections.

W. Z. Hutchinson—Put on unsealed sections.

George Hilton—When using deep frames, and the bees do not enter the sections readily, take out the side frames that are filled with honey, and extract it; then return the empty frames, but put them in the center of the brood-chamber. When the bees will not work in the supers it is sometimes because there is too much honey in the brood-chamber, and this choked condition is often caused by honey being carried over from the previous season. We have to put supers on early in northern Michigan.

Mr. Hutchinson—To get the bees to work in the supers, half or partly filled sections are sometimes used. Get the bees to clean out these unfinished sections the fall before, and in the spring they can be used. Sometimes the outside frames in the brood-chamber are filled with honey. These can be uncapt and placed in the center of the brood-chamber, when the bees will carry this honey up into the sections.

Mr. Beecham—I can not always get the bees to work in sections or starters.

Mr. Hutchinson—I use drawn combs to get them started.

Wm. J. C. Davis—I have had no trouble with bees not working in the supers.

Mrs. Jackson—I have had no trouble with bees loafing. I tier up the supers with partly filled sections.

POLLEN IN THE SECTIONS—CROSS BEES.

Mr. Beecham—I produce extracted honey altogether. I have had trouble with the Heddon hive, as I have to use a queen-excluder. When I produced comb honey and had to use a queen-excluder the bees put pollen in the sections, and the queen sometimes got thru the excluder and laid eggs in the sections.

Mr. Hutchinson—I have no trouble with pollen in the sections, and would suggest that Mr. Beecham put a comb in the brood-chamber from which the honey has been extracted, and this comb would take the extra pollen. I should think that being bothered with pollen in the sections in this way was a good deal a matter of locality.

Mrs. Menold—When the frames are filled with honey I take out one of them and put a new one in its place.

Mrs. Menold—What shall I do with cross bees?

Mr. Hutchinson—Change your queens.

WINTERING BEES—PUTTING ON SUPERS.

Mrs. Menold—I do not winter my bees in the cellar. I put a dry-goods box over the hive and pack hay between the box and the hive.

Mr. Beecham—I have had trouble with bees storing honey on frosty nights. I would like to ask Mrs. Jackson if she winters her bees in the cellar.

Mrs. Jackson—Yes. I do not put them out until the willows bloom, and I put on sections in apple-bloom.

Mr. Beecham—I think that bees should be protected on cold nights in the spring. For the past two years I have wintered mine in the cellar, and think that when they are so wintered they will dwindle in the spring.

Mr. Coveyou—I think that the supers should be double-walled and tight. I should also want double-walled hives.

Mr. Root—I think that bees in chaff hives will not be affected by cold nights. If the bees are to work in the sections at night the supers must be warm enough for them to do so.

Mr. Berg—I lose more bees in the cellar than in chaff hives, so I prefer to winter them in chaff hives.

Mr. Hilton—I have cushions on all of my hives. I think the cushions must be retained on the supers in order to have the bees draw out the comb. The supers must be tight or the bees can not work in them, and it will not do to put on supers when the brood-chamber is only half full of brood. The brood-chamber must be filled with brood and no honey, and the hives must be warm.

Mr. Beecham—I was led to use the Heddon hive so as to avoid the handling of so many frames. I would like to ask if Mr. Hilton has any trouble in getting out the first frame.

Mr. Hilton—None at all. I have self-spacing frames with thick top-bars.

Mr. Sillsby—I have no trouble in getting out the first frame; I use a block with a slope to it, and have thick top-bars. Neither am I annoyed with brace-combs.

Mr. Hilton—I leave a $\frac{3}{8}$ -inch space between the top-bars to prevent brace-combs.

Mr. Beecham—One must be a good judge to know when is the right time to put on supers.

Mr. Townsend—I use full sheets of foundation.

Mr. Root—One must have the hives tight so that the cold air can not get in.

Mr. Beecham—I have had trouble with bees that would

not store honey in sections, but would store it in the extracting combs.

Mr. Townsend—They will store honey in the extracting combs better than in the sections.

Mr. Hilton—I have had experience with both starters and full sheets of foundation, and the sections have been finished sooner when the full sheets were used.

PLAIN SECTIONS AND FENCES.

Mr. Coveyou—I like the fence separators best, as the queen does not like them.

Mr. Root—Three-fourths of the orders now are for plain sections with fence separators.

Mrs. Menold—I use a section plain all around.

Mr. Hilton—A plain section is one without the inset. I never had first-class section honey until I used plain sections. The sections must be taken off as soon as they are capped or they will be travel-stained. The tiering-up must not be continued too long. The plain section without the inset has come to stay. The honey that sells to fancy trade is that secured by using plain sections and fence separators.

Mr. Berg—I used plain sections for the first time the past season, and like them the best.

Mr. Fox—I have sold my honey in plain sections in this city.

USING OLD SECTIONS—ALSIKE CLOVER.

Mr. Root—Does it pay to use sections that have been used the year before?

Mr. Hutchinson—I think that if the old sections have been taken care of and kept clean they are all right to use again.

Mr. Hilton—I have put on sections that have been used before, but every year I use less of them. No sections ever come off as nicely as the first I put on—the first honey here is the best. I get better results when I use new sections, as the bees seem to work better in them.

Mr. Beecham—I have always used drawn comb in the sections. I take off sections before the buckwheat flow, as I do not want it to get mixed with the white honey.

Mr. Berg—I have used cleaned sections with drawn comb, and have found that the bees would get these combs uneven. I get the best honey from new sections, when I use full sheets of foundation.

Mr. Sillsby—I sold all of my white honey for 15 and 16 cents per pound. There are 100 acres of alsike clover near me, and the bees work better on it than on red clover.

Mr. Storer—I had a fine lot of honey from alsike clover; bees like it the best.

EARLY FEEDING—WORKING IN SUPERS.

Mr. Sillsby—I would like to ask about early feeding to build up the colony.

Mr. Hilton—Begin to feed as soon as the bees begin to fly.

Mr. Hutchinson—I do not think that liquid feeding in the spring pays. A weak colony must not be stimulated in the spring; if this is done and a cold spell comes on then it's "good-by" to the colony.

Mr. Berg—I have had trouble with bees not working in the supers. I reduced the swarming fever by extracting—putting on a shallow super, then extracting the honey they stored in it, and afterward putting on sections. I put a new super underneath the one partly filled, being careful not to allow the upper one to become filled.

Mr. Hilton—I put an empty super underneath the one partly filled, and tier up just as soon as the super is $\frac{3}{4}$ full. Bees will not travel by an empty super.

Mr. Coveyou—I think it pays to put supers on early, so as to get the early flow.

SWARMING.

Mr. Berg—When bees have nothing to do they want to swarm. I would rear colonies from queens that do not swarm, as my experience has been that I get more honey from bees that do not swarm.

Mr. Beecham—If you run for extracted honey your bees will not swarm, but they will if you run for comb honey.

Mr. Berg—I had one colony that did not swarm, and they stored from three to four supers of honey every year.

Mr. Kaufman—I have no trouble with the bees swarming, as I run for extracted honey.

Mr. Kitson—I have had three queens in one hive, each queen having a part of the hive.

Mr. Berg—It is very difficult to keep the bees from swarming when producing comb honey. People should not eat comb honey, as the wax is not good to eat; it is indigestible, and is not made to eat, but to hold honey. Extracted honey is the best to eat.

Mr. Hutchinson—Extracted honey is more easily pro-

duced, and the outlook is good for it at present. The market is growing better all the time, and no bee-keeper who has kept a large number of colonies has made money unless he has run his bees for extracted honey.

□ Mr. Beecham—I would like to ask if the Hilton hive would stay packed.

□ Mr. Hilton—They are ready for use all the time—winter spring, or fall.

KEEPING ANTS OUT OF HIVES.

Mr. Beecham—I am bothered with ants.

Mr. Berg—I used tarred paper under the bottom of the hives to keep the ants out. I like the chaff hives the best, and ventilate them in warm weather, when the bees hang out.

Mr. Root—I use tar paper to keep the ants out of the hives.

Mr. Hilton—I use salt to keep the ants away. It will drive the ants away, but not the bees. I put the salt on the inside of the hives, on the bottom-board.

Mr. Kitson—I would like to know of something that will keep the grass and weeds down.

Answer—Salt will do this very well.

BEEES AND FRUIT.

Mr. Root—What about that case near South Haven, Mich., where a peach-grower sued a bee-keeper for damages?

Mr. Rankin—The bee-keeper was sued by a peach-grower for damages to the amount of \$200. The records of the Department of Agriculture at Washington, D. C., showed that bees will not attack fruit with a whole skin. From the evidence shown at the trial the fruit-grower withdrew his suit. It seems that some of the early peaches were affected with a peculiar rot which attacked the fruit before it was ripe, and the bees worked on this fruit.

Mr. Root—The same trouble occurred in the State of New York with the early cling-stone peaches. A suit came to trial there but the verdict was "no cause for action."

Mr. Berg—We have no bee-fighters in this part of the country. The fruit-growers want the bees near their fruit to fertilize the blossoms. Many of them spray their fruit-trees while in bloom, and some bee-keepers have lost half of their bees from this cause.

Mr. Hilton—A law was past while I was in the Legislature prohibiting fruit-growers from spraying trees while in bloom.

Mr. Kitson—I wish that law might be published in the bee-papers.

(Concluded next week.)

* The Home Circle. *

Conducted by Prof. A. J. Cook, Claremont, Calif.

KINDNESS IN THE HOME.

I never could quite understand the biblical expression, "The small foxes destroy the vines." The fox has no love for the vineyard. The poultry-house attracts him far more. Neither vineyard nor grape is toothsome to Reynard, yet the truth taught in this small fox, and despoiled vine-field, is absolute. The true home is builded on real heart-sympathy. Unless each feels for the other, what will keep back the cruel sarcasm, the unfeeling word, the taunting laugh? And are not these, one and all, the little foxes?

I have a dear home in mind—father, mother, two daughters. It is a home where the bitter word, or thought that prompts it, was never in evidence. Paul's grand words were ever heeded in that splendid home—"Let each esteem the other better than himself." I mind me of a beautiful winter evening. I was the fifth one in that home circle for the time. We were all talking in merry mood, except Edith, who was trying to manage a great volume of pictures. Her small lap and the big book were a great misfit. Tho not impatient, she turned the pages with no slight effort and trouble. Without any break in our converse, the thoughtful father past thru the large wide-open folding doors to the next room, quietly reached a suitable chair, and soon the myriad pictures were resting on this improvised book-stand, where it was easy to turn the great pages. It must have been a rich reward to that thoughtful father's heart, as his act was greeted with a sweet smile and hearty "Thank you." This was just one of a whole troop of kindly acts that so filled that home with sun-

shine that there was always some to spare, and we fortunate visitors ever carried a good quantity away when we past out of its doorway.

If Heaven ever does give a little piece of her very own precious self to this world, where all is not yet heavenly, it is in just such homes. The father never hears a wish from *any* of the loved ones, that his heart does not yearn to satisfy it. His best pleasure comes from the little planned surprises. Labor and effort that would vex and weary where no love sweetens the life, is now only and wholly pleasure. The mother-heart is even more alert. She is ever touched and moved by any wave of pain or trouble, and irksome labor, and even painful effort, are coveted by her, if they but minister to the pleasures of the household. Christ raised the world,—is ever raising it to higher and higher thought and purpose—because he was willing and glad to give himself to it and for it. It is this Christ spirit of sacrifice that glids the home. Children that breathe such an atmosphere must enjoy moral health in all its blessed fullness.

We have a cow in our airy barn and cleanly yard just back of it. She is of the pleasing fawn, so generally seen in the Jersey herd, and her bright eye has the nervous sprightliness of the breed. How pretty is the double ring of color that keeps guard above her mouth and nose. Gentle is she as the dove that coos hard by among the evergreens. She looks happy. I think she is. She ought to be. Good performance will hand over happiness if anything will. Our Jersey deals in good performance. For eight years she has given us a daily average of ten quarts of the most splendid milk. And such cream and butter—yellow as the golden-rod, and sweet as its nectar drops. Happiness is born of appreciation. Our Jersey never hears a harsh word. The milk-stool never serves but for a seat. When she sees me coming she greets me with an appreciative call which none other ever receives. She knows I give the care, and that I look carefully to her needs. There is a kind of good-fellowship between me and my Jersey that is not one-sided in its fruits. It is a delight to feed and milk her, which is done at just the same time each night and morning. It is a pleasure to plan for feeding her just what will be most appetizing and at the same time will push the white foam away to the very brim of the pail. Would the home circle be complete without such companions? Let us give the children such pets and beget in our children such love of these friends of the home, that the golden rule will be one of the trio whenever child and pet cow, horse or kitten are companions.

THE INFLUENCE OF HOUSE-PLANTS.

We may not all have costly paintings, fine statuary may be out of our reach, but there is a home adornment which costs but a trifle, and which transcends either picture or statue in real beauty. It is from God's hands, and so shows perfection in its fashioning. Our parlor now has a great sword-fern just by the west window. Near it is a very costly painting—one of Hill's incomparable touches showing the marvelous Yosemite. Yet were one—painting or plant—to leave for a while, I would give up the picture. Yet this plant has only cost a trifle except Mrs. Cook's daily and loving ministrations, and these are not given grudgingly.

Close by at another window is the dainty, exquisite palm—*cocus weddelliana*. The one is ever reaching out its refining influence in its great health, wondrous vigor, rich color, and incomparable grace. When tired, it is so restful to sit beside it. To be peevish or irritable in its presence would seem all inharmony. The little palm so clean, delicate, and full of grace, is equally "a joy forever." Why are there so few of such gems in our homes? Our dining-room and hall have like treasures. Bereft of them the room would suffer indescribable loss.

A Celluloid Queen-Button is a very pretty thing for a bee-keeper or honey-seller to wear on his coat-lapel. It often serves to introduce the subject of honey, and thus often leads to a sale.



NOTE.—One reader writes: "I have every reason to believe that it would be a very good idea for every bee-keeper to wear one [of the buttons] as it will cause people to ask questions about the busy bee, and many a conversation thus started would wind up with the sale of more or less honey; at any rate it would give the bee-keeper a superior opportunity to enlighten many a person in regard to honey and bees."

The picture shown herewith is a reproduction of a motto queen-button that we have been furnishing to bee-keepers for a long time. It has a pin on the underside to fasten to the coat. Price, by mail, 6 cents each; two for 10 cents; or six for 25 cents. Send all orders to the office of the American Bee Journal.

Maule's (35 new things for 1901) Seed Catalogue

You should, by all means, have this **most modern catalogue of modern times**. It is brimful and overflowing with good things in vegetable, farm and flower seeds, flowering plants, fruits, bulbs, etc. It contains **35 novelties in vegetables and flowers never offered before**, has 136 large pages, seven handsome colored plates and hundreds of illustrations. It gives practical, up-to-date cultural directions and offers many cash prizes. The first edition alone costs over \$30,000, so while we send it free to all customers, we must ask others to send 10 cents for it, which amount they may deduct from their first order. You will make a mistake if you do not write to-day for this the Novelty Seed Book of the year. Address, **WM. HENRY MAULE, Philadelphia.**

3D4t

Please mention the Bee Journal.

Belgian Hares CHEAP.

PEDIGREE AND COMMON STOCK.

Having bought a Job Lot of a neighbor and added to what I had, I must dispose of same to make room for my increase. They are mostly young—3 months and over—with a few bred Does. ALSO

Italian Queens

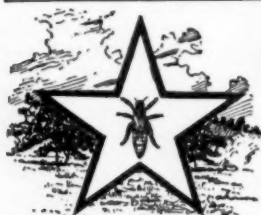
of last season's rearing, ready as soon as the weather is warm enough to send thru the mail. Write for prices. Address,

J. L. STRONG,

Clarinda, Page Co., Iowa.

11A1t

Please mention Bee Journal when writing



**Lone Star
QUEENS.**

Breeder of
FINE
ITALIAN QUEENS
**G. F. Davidson
& Sons,**

Established 1885. FAIRVIEW, Wilson Co., TEX.

12A1t

Please mention the Bee Journal.

Bee-Supplies

We are distributors for **ROOT'S GOODS** AT THEIR PRICES for southern Ohio, Indiana, Illinois, West Virginia, Kentucky, and the South.

MUTH'S SQUARE CLASS HONEY-JARS, LANGSTROTH BEE-HIVES, ETC.

Lowest Freight Rates in the country. Send for Catalog.

C. H. W. WEBER,
Successor to C. F. MUTH & Son,
2146-48 Central Ave., CINCINNATI, O.



SENT ON 30 DAYS TRIAL \$5
The Bantam hatchlings every hatchable egg. 30-egg size, 85c. Send 4c for Cat. No. 63 Buekeye Incubator Co., Springfield, O.

HOME-SEEKERS' EXCURSIONS.

On the first and third Tuesdays of each month the Chicago, Milwaukee & St. Paul Railway will sell round-trip excursion tickets from Chicago, Milwaukee and other points on its line to a great many points in South Dakota, North Dakota, and other Western and Northwestern States at about one fare. Take a trip West and see the wonderful crops and what an amount of good land can be purchased for a little money. Further information as to rates, routes, prices of farm lands, etc., may be obtained by addressing F. A. Miller, General Passenger Agent, Chicago, Ill. C

GENERAL ITEMS

Prospects Good for the Coming Season.

I am a beginner in the bee-business, and have five colonies of bees in the cellar, which seem to be doing well. The prospects for the coming season are good, and I think we will have plenty of white clover.

I have taken the American Bee Journal one year, and think I could hardly do without it, as I get so much valuable information from it.

C. M. LAWRENCE.

Blackhawk Co., Iowa, March 7.

Winter Report—Long-Tongued Bees.

The season of 1900 was not a very good one for honey in this locality. I have not had a paying crop for three years, but look for better things the coming season. The indications for a good crop of white clover were good up to March 3d, but it turned cold on the 4th, after having been warm for a few days, and melted all the snow, which leaves the clover in bad condition. Bees wintered outdoors have had a number of good flights during the winter, but those in the cellar are not doing very well, being more uneasy than usual; more than a third of the 70 colonies in the cellar are spotting their hives, and I think there are many more dead bees on the floor than in former winters. I have been keeping a record of the bees swept up since Jan. 16th, also of the number of hives spotted, and will report on it later.

I have some of the long-tongued bees .18 and .19 mm., the latter of the five-banded stock. I shall watch the tongue matter next summer, as I am prepared to measure the tongues.

THEO. S. HURLEY.

Tama Co., Iowa, March 5.

Bees Wintering Well.

Bees are wintering well, are building up nicely now, and prospects are good for a honey crop; but sometimes we have dry weather that cuts us out.

T. B. BOWNS.

Milam Co., Texas, Feb. 4.

Hard Winter on Bees in New York State.

So far the 20th century has been the worst ever known for bees in this locality. There has been no weather for them to have a flight, and during the whole month of February it didn't thaw even once in the shade, with the thermometer from zero to 12 degrees below much of the time. The snow is from 4 to 10 feet deep in our roads, and the ice is from 18 to 22 inches thick on the ponds and lakes. Bees that survive will be of a hardy race—those wintering on the summer stands, at least.

G. M. DOOLITTLE.

Onondaga Co., N. Y. March 6.

Report for the Past Three Seasons.

I am a man with a hard case of chronic bee-fever. Two years ago a friend gave me, late in July, a colony of bees in a box-hive. They cast a swarm the next day, which I hived successfully in a Langstroth hive. Late as it was, they gathered enough honey for winter, and the next summer I divided them. The colony in the box-hive swarmed when I was away from home, and they never came back any more. I got 125 pounds of comb honey that year.

The next spring I purchased 12 colonies at \$3.00 each; that was a poor year for honey in this locality, and I got 420 pounds of honey (nearly all of which was dark), and increased to 22 colonies. One of these was queenless in the spring, so I began the last season with 21 colonies. White clover, basswood and buckwheat did nicely, but there was no fall flow to speak of. I secured 73 pounds per colony,

Dittmer's Foundation!

Retail—Wholesale—Jobbing.

I use a PROCESS that produces EVERY ESSENTIAL necessary to make it the BEST and MOST desirable in all respects. My PROCESS and AUTOMATIC MACHINES are my own inventions, which enable me to SELL FOUNDATION and

Work Wax Into Foundation For Cash

at prices that are the lowest. Catalog giving

Full Line of Supplies,

with prices and samples, free on application. BEESWAX WANTED.

GUS. DITTMER, Augusta, Wis.

Please mention Bee Journal when writing.



GREIDER'S POULTRY

always do well, 50 standard varieties. Handsomest poultry book of the season for 8c stamps. Full of money-making hints. My birds are winners.

B. H. GREIDER, Florin, Pa.

Please mention Bee Journal when writing.

ALBINO QUEENS

If you want the most prolific Queens—If you want the gentlest Bees—If you want the best honey-gatherers you ever saw—try my Albinos. Untested Queens in April, \$1.00; Tested, \$1.50. 11A26t

J. D. GIVENS, LISBON, TEX.

Please mention Bee Journal when writing.

Bees = Supplies

CATALOG FREE.

I. J. STRINGHAM,

105 Park Place, - NEW YORK, N. Y.

13A26t

Please mention the Bee Journal.



"Electric"

applied to either
Wheels or Wagons

is a guarantee of excellence. The public appreciates this fact. In 4 years we sold 320,000 Electric Steel Wheels and 30,000 Electric Handy Wagons. We make wheels to fit any wagon. Illustrated Catalog FREE. Electric Wheel Co. Box 18, Quincy, Ills.

Please mention Bee Journal when writing.

For Sale Incubator, Brooders, Etc.

One 400-egg, Prairie State Incubator; one 20-foot Sectional Hot-Water Brooder; one 10-foot Sectional Hot-Water Brooder; one Hand or Power Dandy Bone-Cutter. All new. Will sell them for cash for less one-half of their value, or exchange for small steam-power. For reference and description address

A. T. SICKLER, Vernon, Wyoming Co., Pa.

Please mention Bee Journal when writing.

A 20th Century Catalog—It is not the fault of the seedsmen if the tables of the farmers at this season of the year are not abloom with colored illustrations of the products of the vegetable and flower garden. One of the largest and most attractive is "Maule's Seed Catalog, 1901." Its 136 pages are literally crammed with information about seeds that grow, and which Maule sells. From it we learn that the concern is one of the largest mail-order houses in the world, paying out during the last 5 years, for postage, \$151,887.58. There are several valuable novelties in the catalog, the two leading ones being the "Success" tomato, which is pronounced to be the best market tomato introduced to the American farmer and gardener, and the Snow White Dent corn, said to be the grandest milling corn in the world. Other new varieties are Maule's First Early cabbage, the Model muskmelon, the Nameless giant, a new, unnamed French carrot, Imperial, giant sugar-corn, Maule's unnamed lettuce, Excelsior Tree egg-plants, the Prodigious pea, and others. In fact, the largest list of new things we remember to have seen in any one catalog. It would be an educator in any family, and can be had free by our subscribers for the asking; others must send 10 cents for it. Publish by Wm. Henry Maule, Philadelphia, Pa. Please mention American Bee Journal when writing.

spring count, and increase to 35. Some one robbed one of these, so now I have only 34. I winter the bees on the summer stands, and the only loss I have sustained so far is the one queenless colony last spring, and they are all in good condition now. I intend to keep increasing until I get enough.

The American Bee Journal is "boss of the job"—I do the work. C. H. BENSON.
Calhoun Co., Mich., Feb., 28.

Tin Cans vs. Barrels for Honey.

J. H. Martin says freight-rates on honey in tin cans cased, from California to the East, are \$1.10 per 100 pounds; on honey in barrels \$1.30 per 100 pounds. The editor is a tin-can man, and calmly says, "Comment is unnecessary." Now, ye editor, we won't comment, but listen:

Freight-rates on honey in tin cans cased, from Apalachicola River points in Florida to Boston, New York, Philadelphia, etc., are \$1.35 per 100 pounds; on honey in barrels 78 cents per 100 pounds. Arguments in favor of barrels vs. tin cans for shipping honey now in order. Comments received.

M. W. SHEPHERD.
Franklin Co., Fla., March 4.

["Comment is unnecessary!"—EDITOR.]

Bees in Splendid Condition.

We have so far had a very pleasant winter—only three zero days in January and five in February. There were ten days in January and three in February when the bees could take flights; they are having a fine flight to-day, and every colony seems to be in the best of condition.

When we have another warm spell I intend to overhaul all of my colonies, and properly adjust them. WM. STOLLEY.

Hall Co., Nebr., Feb. 27.

Bees Wintering Nicely.

My bees have wintered nicely, and the prospects are better for a good crop of honey this season. W. W. MCNEAL.
Scioto Co., Ohio, March 19.

Prospects Bright—Controlling Swarming.

The rain is pouring down, and the country in this vicinity never lookt better. All the farmers are rejoicing over the prospects of a splendid season, and all is fine for the bee-keeper as well as the rest.

The last of next month I expect to requeen all of my colonies, and try to control swarming, if possible. Last year we had but 11 swarms, and I notice that one of the mother colonies is now very weak. I bought some queens from Texas last year, which were fine layers, and I managed the colonies so that no swarms issued after the prime swarm. A little while before swarming-time I requeen all colonies, giving them a young laying queen, so I am not very often troubled with swarms: tho sometimes they will swarm in spite of all that I can do. HARRY L. HEWITT.

San Joaquin Co., Calif., Feb. 23.

1900 a Poor Season.

Last season was a very poor one for bees here. There was not much for them to gather after July 1st, so a great many of them went into winter quarters with very little to live on thru the winter, and now I hear that over 60 percent are dead. Mine are all right so far; I fed them last fall, and expect to feed again in the spring. M. H. VOGT.

Nemaha Co., Kans., Feb. 25.

Bees Wintering Nicely—Good Report.

My 19 colonies of bees seem to be very quiet, and I think they are wintering nicely in the cellar. The bottom-boards are nailed tight to the bottoms of the hives, the entrances are open clear across, and the covers are shoved forward about two inches, with a cloth over



BEE-KEEPERS' SUPPLIES

THE FINEST IN THE WORLD.

Our New 1901 Fifty-Two Page Catalog Ready.

Send for a copy. It is free.

G. B. LEWIS COMPANY....

WATERTOWN, WISCONSIN, U. S. A.



You Can't Afford to Guess

at results in the poultry business. If you fail to raise the chicks, you simply have no business. The way to be absolutely sure about getting the chicks is to employ a Cyphers Incubator in your hatching. We guarantee them to last 10 years and to out hatch any incubator made. The best way to know about it is to read our 224 page (8x11 in.) book, "Profitable Poultry Keeping." Has 250 illustrations and covers the entire subject. We send it for 10 cents in stamps. Ask for book 50. Circulars mailed free. Address nearest office.

CYPHERS INCUBATOR CO. Chicago, Ill., Wayland, N. Y., Boston, Mass.

Please mention Bee Journal when writing

Marshfield Manufacturing Company.

Our Specialty is making SECTIONS, and they are the best in the market. Wisconsin BASSWOOD is the right kind for them. We have a full line of BEE-SUPPLIES. Write for free illustrated catalog and price-list.

8A26t

Marshfield Manufacturing Co., Marshfield, Wis.

Please mention Bee Journal when writing.

We want *

To sell you BEE-SUPPLIES!

Our line is all new and complete. Send for our Illustrated Catalog; it will convince you that our Dovetail Hive is the best on the market. Our prices are right, and our service is prompt.

Fred W. Muth & Co.

S. W. Cor. Front & Walnut Sts., CINCINNATI, O.
Please mention Bee Journal when writing.

Wanted to Buy

40 pounds of pure ITALIAN BEES, and 10 one-year-old

PURE ITALIAN UNTESTED QUEENS—
—from the one making the best offer. BEES
WANTED APRIL 1ST. Address,

L. H. GREENE,

13Alt BOX 48, BERTHOUD, COLO.

BEES WANTED!

50 TO 75 COLONIES.

If you have any for sale write to H. G. QUIRIN,
PARKERTOWN, OHIO. 13A4t

Wanted

50 Strong Colonies of ITALIAN BEES in 10-frame Dovetailed hives, Hoffman wired frames.

13Alt CHAS. D. HANDEL, SAVANNA, ILL.
Please mention Bee Journal when writing.

BEE

HIVES, SECTIONS AND ALL BEE-KEEPERS' SUPPLIES.

Big Catalog Free. Write now. Leahy Mfg. Co., 2415 Alta St., E. St. Louis, Ill.

6Atf Mention the American Bee Journal.



Queen-Clipping Device Free....

The MONETTE Queen-Clipping Device is a fine thing for use in catching and clipping Queens wings. We mail it for 25 cents; or will send it FREE as a premium for sending us ONE NEW subscriber to the Bee Journal for a year at \$1.00; or for \$1.10 we will mail the Bee Journal one year

and the Clipping Device. Address,
GEORGE W. YORK & COMPANY,
Chicago, Ill.

POULTRY BOOK FREE, 64 pages, illustrated with 3 mos. trial subscription to our paper, 10c INLAND POULTRY JOURNAL, Indianapolis, Ind
Please mention Bee Journal when writing.

PAN AMERICAN EXPOSITION.

Nothing since the World's Fair, at Chicago, in 1893, has elicited the widespread interest that is manifest, all over the world, in the Pan-American Exposition, which is to be held in Buffalo, from May 1 to Nov. 1, 1901.

The purpose of the Exposition is to illustrate the progress of the countries of the Western Hemisphere during a century of wonderful achievements, and to bring together into closer relationship the people composing the many States, Territories and Countries of the three Americas. Acting under proper authority, the President of the United States has invited all the Republics and Colonies of the American Hemisphere to join in commemorating the close of the Nineteenth and beginning of the Twentieth Century, by holding this International Exposition on the Niagara Frontier.

For this important event, the Nickel Plate Road has issued an attractive, descriptive folder-pamphlet, elaborately illustrating the Pan-American Exposition, the buildings and grounds.

The Nickel Plate Road is the short line between Chicago and Buffalo, and affords competent train service from Chicago to Buffalo, New York City, Boston, and all points East, with trains of modern equipment, on which no extra fares are charged; also dining-car service of the highest order. It affords meals in its dining-cars on the individual club plan, ranging in price from 35 cents to \$1.00.

Call on any ticket agent for Pan-American folder of the Nickel Plate Road, or address John Y. Calahan, General Agent, 111 Adams St., Chicago.

Parties desiring hotel or rooming accommodations at Buffalo or Niagara Falls, during any period of the Pan-American Exposition, are invited to apply by letter or otherwise to F. J. Moore, General Agent, 291 Main St., Buffalo, N. Y. No. 4—12A3t

BEES QUEENS

Smokers, Sections, Comb Foundation And all Apiculture Supplies cheap. Send for FREE Catalogue. E. T. FLAHERTY, Des Moines, IA

Please mention Bee Journal when writing.

The New RUMELY Thresher

will save enough extra grain in threshing to pay the taxes of the ordinary farm. It combines the apron and vibrator principles and is as far ahead of other threshers as they are in advance of the man with a flail. They thresh fast enough and have capacity enough to suit the thresherman, and it

Threshes Clean enough to suit the most exacting farmer. Last indefinitely. Send for free catalogue of Threshers, Traction, Portable and Semi-Portable Engines, Horse Powers, Saw Mills, etc.

M. RUMELY CO., LA PORTE, IND.



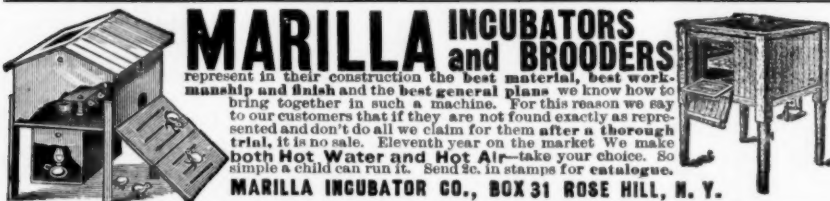
FBW/6

Please mention Bee Journal when writing.

MARILLA INCUBATORS and BROODERS

represent in their construction the best material, best workmanship and finish and the best general plans we know how to bring together in such a machine. For this reason we say to our customers that if they are not found exactly as represented and don't do all we claim for them after a thorough trial, it is no sale. Eleventh year on the market. We make both Hot Water and Hot Air—take your choice. So simple a child can run it. Send in stamps for catalogue.

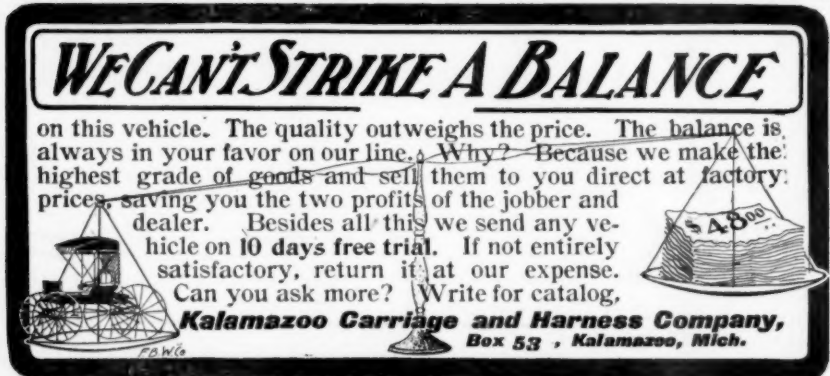
MARILLA INCUBATOR CO., BOX 31 ROSE HILL, N. Y.



WE CAN'T STRIKE A BALANCE

on this vehicle. The quality outweighs the price. The balance is always in your favor on our line. Why? Because we make the highest grade of goods and sell them to you direct at factory prices, saving you the two profits of the jobber and dealer. Besides all this we send any vehicle on 10 days free trial. If not entirely satisfactory, return it at our expense. Can you ask more? Write for catalog.

Kalamazoo Carriage and Harness Company,
Box 53, Kalamazoo, Mich.



A HANDY TOOL-HOLDER!

Sent by Express, for \$1.50; or with the Bee Journal one year—both for \$2.00.

Every Manufacturer, Miller, Carpenter, Cabinet Maker, Machinist, Wheelwright and Quarryman, Farmer, or any one using a grindstone, should have one of these Tool-Holders. One boy can do the work of two persons, and grind much faster, easier and with perfect accuracy. Will hold any kind of tool, from the smallest chisel to a draw shave or ax. Extra attachment for sharpening scythe blades included in the above price. The work is done without wetting the hands or soiling the clothes, as the water flows from the operator. It can be attached to any size stone for hand or steam power, is always ready for use, nothing to get out of order, and is absolutely worth 100 times its cost.

No farm is well-equipped unless it has a Tool-Holder. Pays for itself in a short time.

How to Use the Holder.

DIRECTIONS.—The Tool is fastened securely in the Holder by a set-screw and can be ground to any desired bevel by inserting the arm of the Holder into a higher or lower notch of the standard. While turning the crank with the right hand, the left rests on an steady the Holder; the Tool is moved to the right or left across the stone, or examined while grinding, as readily and in the same way as if held in the hands.

For grinding Round-Edge Tools, the holes in the standard are used instead of the notches.

GEORGE W. YORK & CO., 144 & 146 Erie St., Chicago, Ill.



the brood-frames. They generally winter well when packed in this way.

I had 10 colonies last spring, increased to 19, and secured about 750 pounds of comb honey. They went into winter quarters strong, and seemed to have plenty of good honey, so I am looking for a good harvest the coming season, as we have plenty of sweet and white clovers. The "Old Reliable" is a regular Thursday visitor; long may it live!

W. A. HARRINGTON.

Boone Co., Ill., Feb. 25.

Bumble-Bees in Winter—Prospects Good.

For a number of years it has been, and still is, a mystery how bumble-bees get safely thru the winter. If some one will tell me how they get there I will tell where to find them. During the winter months a little round ball can be found underground, on the inside of which is a white, downy bumble-bee, apparently about ready to emerge. About the time of wild gooseberry bloom the occupant comes forth and partakes of Nature's best. This round ball, so far as I can tell, is precisely the same as those formed by the tumble-bug.

Bees are wintering splendidly, and the prospects are good for the coming season.

FRANK COVERDALE.

Jackson Co., Iowa, Feb. 25.

Bee-Keeping Experiences.

About six years ago I bought two colonies of black bees, paying \$5 each for them in July, and from one of these I obtained a super of nice honey that season. After wintering them in the cellar, from whence they came in vigorous condition in the spring, they gave an increase of three colonies, and, if I remember rightly, three supers of nice white honey.

About two years ago I bought 11 more colonies from a bee-keeper, and as I wanted to have them in time to put into winter quarters, the arrangement was that he should take them to town, and should notify me when he did so. It was about five days after he sent me word before I could go after them, but when I finally did so I found that they had been moved during a rain and sleet storm, and placed in a wood-shed covered with some old rain-soaked carpet. The hives and carpet were an icy mess, as well as the bees. I hauled them home—a distance of 30 miles—placed them in the cellar, which was dry and well ventilated, and after raising the covers, and also the hives from the bottom-boards, in order to give them a chance to thaw and dry, I left them to their fate. After three or four days I went down to see how they were getting on, and found one colony a mass of wet, dead bees, and so they kept going until the whole 11 colonies were dead before it was time to put them outdoors in the spring. The next summer I bought 22 colonies, sold about 20, and obtained a few hundred pounds of honey.

Last spring I took 56 colonies from the cellar, and put the same number in again in the fall. Three dwindled away, leaving only 53

If you want the Bee-Book

That covers the whole Apicultural Field more completely than any other publication, send \$1.25 to

Prof. A. J. Cook, Claremont, Cal.,

FOR HIS

"Bee-Keeper's Guide."

Liberal Discounts to the Trade.

BEE-SUPPLIES!

Root's Goods at Root's Prices

POUNDER'S HONEY-JARS and everything used by bee-keepers. Prompt Service—low freight rate. Catalog free. **WALTER S. POWDER,** 512 Mass. Ave., INDIANAPOLIS, IND.

in condition for business. In May I bought 10 colonies at \$5 per colony. I received and accepted the appointment as census enumerator, and was thus compelled to be away from home during the month of June. My son, 13 years of age, with the assistance of the hired man, caring for the swarms, of which there were only 12 or 15 during the entire month. During July there was a contagion of the swarming-fever, and altho we had tried to prevent swarming by giving more room, cutting out queen-cells, giving ventilation, and using every method we had ever heard of, about 70 swarms emerged, which we doubled, thus increasing our number only about 30. We secured over 1,800 pounds of honey, 1,000 pounds being comb. The total crop was worth \$232, figuring what we consumed and kept for winter use at the same price as what we sold. We put 100 colonies into the cellar, having bought enough to make that number. Our cellar is well ventilated, having an open chimney extending from it. Some of the swarms were very light when put in, and we placed them at the top, putting supers over them containing light-weight sections. Yesterday I went into the cellar and found a lot of dead and crawling bees on the cellar floor, and a very uneasy condition prevailing. I would like to know the cause of this. Have some of the colonies starved out, or is the cellar too warm? Not having a thermometer I can not give the temperature, but I judge it is about 45 or 50 degrees. H. W. CORNELISON.

Washburn Co., Wis., Feb. 16.

CONVENTION NOTICES.

Chicago.—The next regular meeting of the Chicago Bee-Keepers' Association will be held Thursday, April 4th, at the Briggs House, Chicago, from 1 p.m. until those present get tired and quit, which is usually 9:30 p.m. A feature of the meetings lately has been for all present to dine at 5:30 in a company. All are urged to be present and help us all have a good, old-fashioned time. HERMAN F. MOORE, Sec.

Utah.—The Utah Bee-Keepers' Association will hold its regular spring meeting April 5th, at 10 o'clock a.m., in the City and County Building at Salt Lake City. All are cordially invited. We expect to get out a treatise or pamphlet, the object of which will be to give the best and quickest method to discover, cure, and prevent disease among the bees, and the best way to protect them from their enemies. It will also contain other matter for the benefit of the industry, including our State law. We will be pleased to receive communications from any of our bee-keepers upon any subject along the lines indicated. Address, Pres. E. S. Lovesy, Salt Lake City, Utah, or J. B. Fagg, Sec. East Mill Creek, Utah.

TWENTY MILLIONS IN GOLD

From Alaska during the year 1900.

Five millions of this came from the Nome district. Government officials estimate the output from the Nome district will be doubled the coming season. The Bluestone, Kongarok and Pilgrim rivers have been found very rich. There is hardly a creek from Port Clarence to Norton Sound in which the precious metal is not found, and hundreds of creeks unprospected. A rich strike has been made on the Yellow river, a tributary of the Kuskokwim.

For full information regarding routes, steamship accommodations and rates to all points in Alaska, address C. N. Souther, General Agent, Passenger Department, C. M. & St. P. R'y, 95 Adams Street, Chicago. 13A3t

California! If you care to know of its Fruits, Flowers, Climate or Resources, send for a sample copy of California's Favorite Paper—

The Pacific Rural Press,

The leading Horticultural and Agricultural paper of the Pacific Coast. Published weekly, handsomely illustrated, \$2.00 per annum. Sample copy free.

PACIFIC RURAL PRESS,

330 Market Street, - SAN FRANCISCO, CAL.
Please mention Bee Journal when writing.



Tennessee Queens!

Fine lot of Choice Tested Queens reared last season, daughters of select imported and select golden queens, reared 3 1/4 miles apart, and mated to select drones, \$1.50 each; untested warranted Queens, from same breeders, either strain, 75c each. No bees owned nearer than 2 1/4 miles. None impure within 3, and but few within 5 miles. 28 years' experience. Discount on large orders. Contracts with dealers a specialty. JOHN M. DAVIS, 6A26t

Spring Hill, Tenn.
Please mention Bee Journal when writing.

Worth \$25.—B. H. Greider, the well-known poultry-breeder of Florin, Pa., whose card will be found elsewhere in this issue, recently received a letter from a customer who enclosed stamps for several copies of Mr. Greider's catalog for his friends, saying that the copy he had received was worth fully \$25 to him. It is a most valuable book, handsomely illustrated, and containing full descriptions of all the leading varieties of poultry. Mr. Greider's farm at Florin is one of the best stocked poultry establishments in the country. He has been a careful student of advanced methods, and by careful breeding has produced as fine a lot of fowls as will be found anywhere. Moreover, having a large farm, his fowls are not cooped up in little pens, but have the good range necessary to health and vigor, and the production of fertile eggs which hatch chicks that live and grow. It is for this reason that Mr. Greider's customers always are so well satisfied with their purchases from him. Send 8 cents for his valuable book. It is full of money-making hints. Circulars free. Please mention the American Bee Journal when writing.

Rocky Mountain Bee-Plant Seed!

(*Cleome integrifolia*.)

...FREE AS A PREMIUM...

The ABC of Bee-Culture says of it: "This is a beautiful plant for the flower-garden, to say nothing of the honey it produces. It grows from two to three feet in height and bears large, clusters of bright pink flowers. It grows naturally on the Rocky Mountains, and in Colorado, where it is said to furnish large quantities of honey."

We have a few pounds of this *Cleome* seed, and offer to mail a 1/4-pound package as a premium for sending us ONE NEW subscriber to the American Bee Journal, with \$1.00; or 1/4 pound by mail for 40 cents.

GEORGE W. YORK & CO.
118 Michigan St. CHICAGO, ILL.

Good Instruments.

Don't confuse these instruments with cheap "bargain counter" offers. They are high grade, fully guaranteed, instruments from **MUSICALS**.
VIOLIN—Amati model, choice of 3 colors, dark brown, light red or amber, full ebony trimmed, Brazil wood bow, pearl slide, full leather bound canvas case, extra set of strings, rosin, etc., worth \$50. My Price \$6.25.
GUITAR—Solid Rosewood, standard size, neatly inlaid, Spanish cedar neck, celluloid front, ebony finger board, best quality patent head. Full leather bound canvas case. Regular price \$18. My Price \$7.65.
MANDOLIN—Solid Rosewood, 19 ribs; celluloid front; veneered head piece, handsomely inlaid. Elegant French Polish. Patent head, engraved tail-piece. Worth \$18. My Price, Only \$7, with leather bound case, extra set of strings and tortoise pick. Send for circulars of high grade musical instruments of all kinds.

Charles N. Ball Auditorium, CHICAGO.
Please mention Bee Journal when writing.

The Emerson Binder.

This Emerson stiff-board Binder with cloth back for the American Bee Journal we mail for but 60 cents; or we will send it with the Bee Journal for one year—both for only \$1.40. It is a fine thing to preserve the copies of the Journal as fast as they are received. If you have this "Emerson" no further binding is necessary.

GEORGE W. YORK & CO.,
118 Michigan Street, CHICAGO, ILL.

HONEY AND BEESWAX

MARKET QUOTATIONS.

CHICAGO, March 20.—The choice grades of white comb honey sell at 10 cents, with supply about equal to the demand; all other grades are slow of sale at the following range of prices: Fair grades of white, 14@15c; best ambers, 12@13c; mixt colors, 10@11c; buckwheat, 9@10c. Extracted, white, ranges from 7@8c; amber, 6 1/2 @7 1/2 c; buckwheat, 5 1/2 @6 1/2 c. All of the extracted is governed by quality and flavor in the range of prices, the lowest figures in either of the colors applies to the sour, or off-flavored, and unripened. Beeswax, 30c.

R. A. BURNETT & Co.

NEW YORK, March 19.—Our market is virtually bare of comb honey, and there is a fair demand for all grades. Fancy white is still selling readily at from 15@16c; No. 1 white at from 13@14c; amber at from 12@13c; buckwheat, 10@11c, according to quality and style of package.

As to extracted, the market is quiet and inactive, and a certain amount will have to be carried over again. Prices are declining somewhat, and if the honey is not moved in large lots, concessions will have to be made. We quote: California white, 7@7 1/2 c; light amber, 6 1/2 @7c; other grades and Southern, 6@6 1/2 c per gallon. Beeswax very firm at 28@28 1/2 c, and for exceptionally fine yellow, 29c.

HILDRETH & SEGELKEN.

BUFFALO, March 21.—Much better demand for fancy comb at 15@16c; extras, 17c; common, dark, etc., 9@10 to 14c. Extracted, 6@8c, and never in much demand. BATTERSON & Co.

DETROIT, Mar. 21.—Fancy white comb, 14@15c; No. 1, 13@14c; dark and amber, 10@12c. Extracted, white, 6 1/2 @7c; amber and dark, 5@6c. Beeswax, 27@28c. M. H. HUNT & SON.

CINCINNATI, March 21.—The demand for comb honey is nearly over, the stock of it also well cleaned up. Fancy white brings yet 16c. Extracted is in fair demand; dark sells for 5 1/2 c; better grades bring 6@7 1/2 c; fancy white clever from 8 1/2 @9c. C. H. W. WEBER.

KANSAS CITY, Mar. 23.—Receipts light; demand normal at steady prices. Fancy white comb, 15@16c; no amber on market. Extracted, 8@9c. Beeswax scarce, steady demand, 25@30c. W. R. CROMWELL PRODUCE CO., Successors to C. C. Clemons & Co.

ALBANY, N. Y., March 23.—Honey market is slow on all grades of comb honey. Extracted, white, 7@8c; dark, 5@5 1/2 c. H. R. WRIGHT.

BOSTON, March 21.—Fancy No. 1 white in cartons, 17c; A No. 1, 16c; No. 1, 15@16c, with a fairly good demand. Absolutely no call for dark honey this year. Extracted, white, 8@8 1/2 c; light amber, 7 1/2 @8c. Beeswax, 27c. BLAKE, SCOTT & LEE.

SAN FRANCISCO, Feb. 6.—White comb 13@14 cents; amber, 11 1/2 @12 1/2 c; dark, 8@9c. Extracted, white, 7 1/2 @8c; light amber, 6 1/2 @7 1/2 c; amber, 5 1/2 @6 1/2 c. Beeswax, 26@28c.

Considering the light output of honey last spring from California apiaries, present offerings are of tolerably liberal volume and are mostly of amber grades. The market is slow at the quotations. It is reported on good authority that adulterated and imitation honey is being dealt out in considerable quantity, which accounts in a great measure for the very limited business doing in the pure article.

DO YOU WANT A High Grade of Italian Queens OR A CHOICE STRAWBERRY?

Send for descriptive price-list.

D. J. BLOCHER, Pearl City, Ill.

Please mention Bee Journal when writing.

1901—Bee-Keepers' Supplies!

We can furnish you with The A. I. Root Co's goods at wholesale or retail at their prices. We can save you freight, and ship promptly. Market price paid for beeswax. Send for our 1901 catalog. M. H. HUNT & SON, Bell Branch, Wayne Co., Mich. Please mention Bee Journal when writing.

FREE FOR A MONTH

If you are interested in Sheep in any way you cannot afford to be without the best Sheep Paper published in the United States.

Wool Markets and Sheep

has a hobby which is the sheep-breeder and his industry, first, foremost and all the time. Are you interested? Write to-day.

WOOL MARKETS AND SHEEP, CHICAGO, ILL.
Please mention Bee Journal when writing.

We have a Large Stock on hand
and can ship promptly.

SEND US YOUR ORDERS FOR

Hives, Extractors

OR ANYTHING YOU WANT IN THE
BEE-KEEPING LINE.

WE MAKE ONLY THE BEST.

Our Falcon Sections and New Process Foundation are ahead of everything, and cost no more than other makes. New Catalog and copy of THE AMERICAN BEE-KEEPER free. Address,

THE W. T. FALGONER MFG. CO.,
JAMESTOWN, N. Y.

W. M. GERRISH, East Nottingham, N. H., carries a full line of our goods at catalog prices. Order of him and save freight.



200-Egg Incubator for \$12.00

Perfect in construction and action. Hatches every fertile egg. Write for catalogue to-day.
GEO. H. STAHL, Quincy, Ill.

46A25t

Please mention the BEE JOURNAL

SWEET CLOVER

And Several Other Clover Seeds.

We have made arrangements so that we can furnish Seed of several of the Clovers by freight or express, at the following prices, cash with the order:

| | 5lb | 10lb | 25lb | 50lb |
|----------------------------|--------|--------|--------|--------|
| Sweet Clover (white)..... | 70c | \$1.20 | \$2.75 | \$5.00 |
| Sweet Clover (yellow)..... | \$1.50 | 2.80 | 6.25 | 12.00 |
| Crimson Clover..... | 70c | 1.20 | 2.75 | 5.00 |
| Alsike Clover..... | 90c | 1.70 | 3.75 | 7.00 |
| White Clover..... | 90c | 1.70 | 4.00 | 7.50 |
| Alfalfa Clover..... | 80c | 1.40 | 3.25 | 6.00 |
| Japanese Buckwheat..... | 30c | .50 | 1.00 | 1.60 |

Prices subject to market changes.

Single pound 5 cents more than the 5-pound rate, and 10 cents extra for postage and sack.

Add 25 cents to your order, for cartage, if wanted by freight, or 10 cents per pound if wanted by mail.

GEORGE W. YORK & CO.

144 & 146 Erie Street, CHICAGO, ILL.

Wanted

A MAN OF PRACTICAL EXPERIENCE AND ABILITY to care for 150 to 200 colonies of bees. Address,

S. J. DUNNE,

165 S. Forest Ave.,

11A1t RIVER FOREST, COOK CO., ILL.

I ARISE



To say to the readers of the BEE JOURNAL that

DOOLITTLE...

has concluded to sell QUEENS in their season during 1901, at the following prices:

- 1 Untested Queen ..\$1.00
- 3 Untested Queens.. 2.25
- 1 Tested Queen 1.25
- 3 Tested Queens.... 3.00
- 1 select tested queen 1.50
- 3 " " Queens 4.00
- Select Tested Queen, last year's rearing. 2.50
- Extra selected breeding, the very best..5.00

Circular free, giving particulars regarding each class of Queens, conditions, etc. Address,

G. M. DOOLITTLE,

11A26t

Borodino, Onondaga Co., N. Y.

24th Year Dadant's Foundation. 24th Year

We guarantee satisfaction.



What more can anybody do? BEAUTY PURITY, FIRMNESS, No SAGGING, No LOSS. PATENT WEED-PROCESS SHEETING.

Why does it sell so well?



Because it has always given better satisfaction than any other. Because in 23 years there have not been any complaints, but thousands of compliments.

Send name for our Catalog; Samples of Foundation and Veil Material. We sell the best Veils, cotton or silk.

BEE-KEEPERS' SUPPLIES OF ALL KINDS.

Very fine pure-bred BARRED PLYMOUTH ROCK Chickens and Eggs for sale at very low prices.

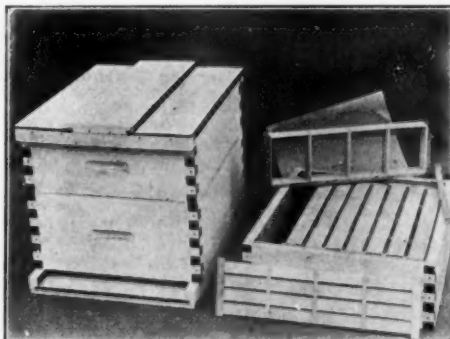
LANGSTROTH on the HONEY-BEE—Revised

The classic in Bee-Culture—Price, \$1.25, by mail.

Beeswax wanted at all times.

CHAS. DADANT & SON, Hamilton, Hancock Co., Ill.

The Danzenbaker Hive.



THIS HIVE is rapidly gaining favor, especially in the Eastern States, where tall sections and closed-end frames are used to a considerable extent; and within the last year or so the Danzenbaker system has been working its way into California, Oregon, and even into Cuba. At the Paris Exposition the hive was awarded a gold medal, and at some of the honey exhibits in this country the comb honey from it has carried off the first prize. Some of the finest honey we have ever seen was produced in Danzenbaker sections; and in the opinion of those who have given the hive and system an extended trial, there is nothing to equal it for the production of a fine article of comb honey. Indeed, in some markets comb honey in Danz. sections commands one and sometimes two cents more per pound than other fancy honey.

Mr. Danzenbaker has long been an advocate of warm supers and warm hives; for he has always insisted that, for the production of comb honey, the super and hive must be warm in order to do the best work in wax-building. To a very great extent the Danzenbaker hive is double-walled; and the sections in the super are especially protected by a special paraffine mat which goes with every hive.

The brood-chamber itself has the same dimensions as the regular 10-frame Dove-tailed Langstroth hive, except that it is shallow; that is, it takes 10 closed-end brood-frames 7½ inches deep and 17 inches long. Each brood-frame is supported by a pivot in the center of the end-bars, so that it may be readily reversed. These brood-frames retain all the advantages of frames peculiar to this class; viz., being reversible, they insure the building of combs to the bottom-bar; as there is no opportunity for air-currents around the ends of the frames, combs, as a rule, are built clear out to the end-bars. This one feature makes them warmer for winter. When a division-board is used on each side we have, practically, a dead-air space around the ends and sides of the brood-nest.

The Danz. brood-nest has the same capacity as the 8-frame Dov. hive—a capacity that has generally been recognized as the best for the production of comb honey. But Mr. Danzenbaker has gone further by making his brood-nest shallower and wider—increasing the amount of surface for the super, and bringing the brood itself—a feature which many consider important—closer to the surplus.

The Danzenbaker brood-chamber can be used with any of our 10-frame supers, either comb or extracted; with any of the 10-frame covers, bottoms, or hive-stands, or with the 10-frame Jumbo hive. There are four patents on the Danz. hives and fixtures.

NOTICE.—The Danzenbaker hive is not made in the 8-frame widths.

THE A. I. ROOT CO., Medina, Ohio.



GEORGE W. YORK & CO., 144 & 146 Erie Street,

are headquarters for ROOT'S BEE-KEEPERS' SUPPLIES IN CHICAGO.

Send to them for their free Catalog.

